

THE
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DECEMBER 1963

A Publication of

THE CANADIAN ASSOCIATION OF UNIVERSITY TEACHERS

VOLUME 12

NUMBER 2

CANADIAN ASSOCIATION OF UNIVERSITY TEACHERS

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IT'S EVERYBODY'S HEADACHE

An Editorial

One of the most interesting documents supplied to the delegates at the C.A.U.T. Council meeting in June at Laval was an analysis of C.A.U.T. and local association membership, institution by institution across the country.* In some cases the analysis must have been cause for real satisfaction, but in others a distressingly large percentage of eligible faculty members do *not* yet accept their responsibility for sharing in the work of the faculty association and of C.A.U.T. Several associations have close to complete support from the staff, but at others the membership figures can hardly lend much strength to any representations or requests purporting to come from the academic staff. Certainly no association, large or small, should be satisfied if it enrolls fewer than 80% of eligible staff, and all of those should be part of C.A.U.T. as well. If fewer than 60% of those eligible are actually enrolled it is difficult for the association to claim the right to represent the staff; if fewer than 50% it is probably dishonest. Certainly members of local executives ought to take a long hard look at the position of their own group on any sort of listing by percentages.

Of recent years we have all been apt to do too much pointing with pride to the impressive achievements of the local associations in such matters as the improvement of salaries, the revision of pension plans, and the provision of insurance benefits of various kinds, and of C.A.U.T. in becoming the recognized professional association of university teachers and researchers. Some of our satisfaction is probably justified. Our economic status has improved; our organization has come to be accepted as an important and authoritative part of the Canadian educational structure; our advice is sought by governments and by other professional organizations. But the tasks that we ought to assume during the next few years make what we have done already seem trivial and unimportant by comparison.

*Printed on page 48.

The problem of raising revenue sufficient to support the activities which the C.A.U.T. Council and Executive plan for the next several years is with us now. We will be faced in 1963-64 with expenditures of some \$58,000. Our revenue of last year was \$49,000. Even assuming the normal increase of membership (about 8% annually since 1959) a deficit will be incurred unless we (a) increase dramatically our membership at the present fee or (b) increase our fee for the present membership. Both possibilities ought to be examined by local association meetings now.

Certainly the membership data referred to already supports the hope that much can still be done by local association executives to increase membership. Even where the association still conducts an annual canvas of members, and where the local secretary and treasurer still make a person-by-person appeal, a vigorous and planned campaign can be effective. A membership drive in September by an active committee can work wonders; so too can an individual approach to all new members of the staff and to all eligible staff who were not enrolled in the local association or in C.A.U.T. last year. But there are very few Canadian universities where it should be necessary for the local treasurer to walk around the campus soliciting fees. It is a very simple matter for the administration to arrange that fees — both local and C.A.U.T. — be deducted from salary. The easiest and simplest method is simply to deduct from salary on a routine basis unless the individual faculty member instructs the administration to the contrary. Somewhat less easy — but still far better than the person to person annual appeal — is the method by which the members are asked to give, on forms distributed by the local association, their permission for deduction of fees. This permission, of course, would be cancellable only by notification from the member.

An increasing number of administrations at Canadian universities now use one or other of these two methods of deduction of association and C.A.U.T. fees. It is hard to see why all do not use it; after all, deductions must be made for so many other purposes that one more makes

little difference, while an enormous amount of time and energy of key faculty members who take on association offices could be saved. It is clear, in fact, that at some institutions where deduction of fees is not yet authorized the real reason is that the faculty association has not bothered to ask for it.

The alternative to increased membership is, of course, to increase fees. In this connection it is a worthwhile exercise to compare, say, the C.A.U.T. annual fee of ten dollars to those charged by other well-established national professional organizations. The Canadian Dental Association, for example, receives \$40 per member. Medical doctors pay fees of \$20-25 to the C.M.A. and other varying fees to provincial and local organizations. The Canadian Bar Association charges \$15 per head. Annual dues of the Professional Institute of the Public Service of Canada are \$18. The Canadian Teachers Federation charges fees equal to 1.5 per cent of members' salaries to a maximum of \$50. Members of the Royal Architectural Institute of Canada are assessed \$35 for their national body. Members of the Canadian Library Association pay on a sliding scale which is adjusted on a salary basis. As a result, a member whose annual salary is \$6,000 pays dues of \$20. An additional \$2 is added for each \$500 of salary above \$6,000. Consulting engineers pay \$100 per year for membership in their national association. Osteopaths contribute \$50 per year. Membership dues in the Association of Canadian Industrial Designers are \$35 per annum. The Canadian Institute of Chartered Accountants receives from its branches at present the same amount per member as does C.A.U.T., i.e. \$10, but already has decided to raise the fee in 1964 to \$12.50, and in 1965 to \$15. In fact, out of some twenty associations which were asked about their fee structure, only one — the Canadian Association of Actuaries — reported a fee lower than that charged by C.A.U.T. And its "nominal" fee of \$4.00 per annum is obviously explained by the fact that it does not have a permanent office and has no paid employees.

J.H.S.R.

THE REWARDS OF AGE

A Comparative Study of Age and Salary of Canadian University Teachers

F. K. Bowers*

In the annual report of the C.A.U.T. Salary Committee, published in the December 1962 *Bulletin*, questions were posed concerning possible variations in age of faculty members at different universities, and how these are related to variations in salary level. We now have some data to answer these questions, thanks to the co-operation of University Administrations and to Mr. R. Mitchener, Chief of the Higher Education Section, Dominion Bureau of Statistics.

The appended table lists the average age and the average salary of members of 28 universities and colleges in the various ranks. The number of persons in each rank and their average age is based on data supplied by D.B.S.; the salary figures are taken from the December 1962 *Bulletin*. They are for full-time academic staff only, and exclude clinical appointments and also members in religious orders (unless paid on the same scale as lay staff).

THE NATIONAL PICTURE

For the whole group of 6,086 teachers, the average age is 40.3 years and the average salary \$9,061. The averages for the various ranks are as follows:—

Lecturers and Instructors	33.3 years	\$ 6,075
Assistant Professors	36.4 years	\$ 7,767
Associate Professors	42.7 years	\$ 9,843
Full Professors, incl. Heads	49.9 years	\$12,934

If we make the assumption that the difference between these four ranks is mainly one of age and experience, then it appears that over this range of ages each extra year is rewarded, on the average, by an additional \$400 p.a. However, several cautions must be added here.

- 1) At some institutions "Lecturers and Instructors" include a significant fraction of people who will never be promoted and will always receive less salary than their professorial colleagues of the same age. Similarly at some universities

*University of British Columbia (Chairman, C.A.U.T. Salary Committee, 1962-63).

it may be the policy that only the abler fraction of Associate Professors ever achieve Full Professor Rank. There would then be differences between ranks of more than merely age and experience.

- 2) While the \$400 for each additional year may be the average over these two decades of life, there could be appreciable irregularities within this range of years. It is also highly unlikely that this average trend will extend into the late fifties and the sixties.
- 3) There is no implication that \$400 represents the average annual salary increase, since the whole distribution of salaries is changing continually.

To obtain a more reliable estimate of the average value placed on each additional year, we require a great deal more information: detailed distributions of salary and age within each rank of each university. In the absence of such data, we will use the \$400 figure merely as a rough guide in comparing salary levels at universities with differing age compositions.

VARIATIONS BETWEEN UNIVERSITIES

In Figures 1 to 5, each university's position is shown with respect to both average salary and average age, first for all ranks combined and then separately for each rank. These figures show a surprisingly large difference between the ages of faculty at different institutions. The variation in age shows no significant correlation with variation in salary. Thus it is *not* true that universities paying higher salaries for a given rank do so largely because they have a more mature staff and delayed promotions.

The information on average age adds an important new dimension to the comparison of salaries. Three examples will be given:

- 1) The average Full Professor at Waterloo is paid \$120 p.a. less than his counterpart at Victoria; but as he is also 11 years younger, he is clearly in a more advantageous position.
- 2) The average Associate Professor at York receives \$136 p.a. more than at Brandon, but it is far more important to note that he is also 10 years younger and would look forward to a considerably better salary in 10 years' time.
- 3) Instructors and Lecturers at Toronto are paid appreciably more than at St. John's, \$5,760 compared with \$5,020, but

this is seen in a new light when it is noted that at Toronto they are, on the average, 36.6 years old while at St. John's they average 26.4 years.

If one desires an estimate of how universities compare in their salary treatment of a person of given rank and *given age*, then this could be obtained by noting the positions of universities with respect to the diagonal dotted line shown on Figures 1-5. This is the \$400 per year progression discussed earlier. Universities well above the line can be expected to pay higher salaries to a person of given age than those well below the line.

The "position numbers" in the Table of Average Age and Salary are derived in the same manner. In each column a university is given two "position numbers", e.g., "4th/11th". The first tells how well its salaries in that rank compare with those of other universities, disregarding age (i.e., how high up in the Figures the university is placed). The second tells how well its salaries compare if age is taken into account (i.e., how far above the diagonal line is the university).

The order in which universities are listed in that table is a reflection of their overall salary level, corrected for age differences. The order is generally very different from that in the December 1962 *Bulletin*, where salary levels only are considered with no regard to age.

It is thus clear that there are important differences in the average age of faculty members at different institutions. It may, of course, be argued that while university X has indeed lower salaries for a given average age than university Y, this is merely the result of a section of older faculty, employed many years ago with perhaps inadequate qualifications — that a professor of a given age and given abilities and talents will in fact receive identical compensation at X and Y.

This may be true, though it would be difficult to substantiate. One conclusion, though, is inescapable. A university which pays professors of considerable age and experience very inadequate salaries is apt to find itself with an inadequate pool of talent: either this poorer quality is the cause of the lower salaries, or, if it is not, then it will surely be the eventual consequence of paying these salaries in a period of increasing competition for staff. In any case, the compensation for a given average is a useful index for comparison.

It is hoped that the publication of these age and salary statistics will enable us to make more meaningful comparisons with salaries in other professions or in other countries.

Table of Average Age and Average Salary of Canadian University Professors

University	All Ranks excl. Deans	Full Prof. incl. Heads	Associate Professor	Assistant Professor	Lecturer & Instructor
Waterloo	113 35.8 yrs. \$ 8,540 15th/1st	16 42.2 yrs. \$ 12,462 14th/2nd	21 38.5 yrs. \$ 10,011 5th/1st	48 34.9 yrs. \$ 7,929 5th/4th	28 31.6 yrs. \$ 6,303 4th/10th
Alberta (A)	555 38.9 yrs. \$ 9,633 2nd/2nd	99 47.7 yrs. \$ 13,052 7th/4th	205 40.8 yrs. \$ 10,449 4th/2nd	230 34.2 yrs. \$ 7,767 13th/2nd	21 32.3 yrs. \$ 6,011 14th/16th
Laval	295 40.0 yrs. \$ 9,967 1st/3rd	95 49.2 yrs. \$ 12,889 9th/11th	67 39.7 yrs. \$ 9,901 9th/3rd	72 34.3 yrs. \$ 8,484 1st/1st	61 32.9 yrs. \$ 7,242 1st/4th
York	36 38.4 yrs. \$ 9,182 8th/4th	8 45.5 yrs. \$ 14,375 1st/1st	10 40.7 yrs. \$ 9,400 14th/9th	8 35.0 yrs. \$ 7,363 17th/12th	10 33.3 yrs. \$ 6,265 5th/18th
McMaster	165 38.1 yrs. \$ 9,061 11th/5th	29 46.0 yrs. \$ 12,883 10th/3rd	45 41.4 yrs. \$ 9,999 7th/5th	64 34.5 yrs. \$ 7,748 14th/5th	27 32.4 yrs. \$ 6,512 3rd/11th
Western	279 39.2 yrs. \$ 9,362 6th/6th	68 49.2 yrs. \$ 13,556 4th/5th	60 41.1 yrs. \$ 9,522 13th/10th	95 35.2 yrs. \$ 7,938 4th/6th	56 32.0 yrs. \$ 6,519 2nd/9th
Carleton	110 38.2 yrs. \$ 8,797 14th/7th	17 46.1 yrs. \$ 11,794 16th/9th	42 41.2 yrs. \$ 9,750 12th/7th	31 35.0 yrs. \$ 7,552 16th/11th	20 30.4 yrs. \$ 6,183 9th/5th
Saskatchewan	334 39.3 yrs. \$ 8,963 12th/8th	60 51.6 yrs. \$ 12,907 8th/14th	91 43.2 yrs. \$ 10,092 1st/11th	101 35.5 yrs. \$ 7,812 10th/10th	82 30.8 yrs. \$ 6,244 7th/7th
Manitoba	363 39.8 yrs. \$ 9,141 10th/9th	65 48.6 yrs. \$ 13,149 6th/6th	96 44.0 yrs. \$ 10,067 3rd/15th	138 37.0 yrs. \$ 7,976 3rd/16th	64 30.8 yrs. \$ 6,198 8th/8th
Queen's	253 40.7 yrs. \$ 9,487 3rd/10th	78 50.8 yrs. \$ 12,869 11th/13th	49 40.7 yrs. \$ 9,753 11th/4th	87 36.2 yrs. \$ 7,844 8th/12th	39 30.3 yrs. \$ 6,062 12th/6th
Ottawa	202 38.4 yrs. \$ 8,365 17th/11th	44 49.0 yrs. \$ 11,510 17th/16th	35 41.5 yrs. \$ 9,286 16th/13th	67 35.2 yrs. \$ 7,800 12th/7th	56 32.1 yrs. \$ 6,001 15th/15th

<i>University</i>	<i>All Ranks exc. Deans</i>	<i>Full Prof. incl. Heads</i>	<i>Associate Professor</i>	<i>Assistant Professor</i>	<i>Lecturer & Instructor</i>
Ont. Agric.	260	60	72	102	26
Coll. & Ont.	40.7 yrs.	47.3 yrs.	41.9 yrs.	39.0 yrs.	29.8 yrs.
Vet. Coll. comb.	\$ 9,246	\$ 12,516	\$ 9,883	\$ 7,866	\$ 5,354
	7th/12th	13th/7th	10th/8th	6th/22nd	24th/12th
U.B.C.	772	161	175	276	160
	40.8 yrs.	50.2 yrs.	43.8 yrs.	36.5 yrs.	35.3 yrs.
	\$ 9,157	\$ 13,334	\$ 10,007	\$ 7,860	\$ 6,263
	9th/13th	5th/10th	6th/14th	7th/14th	6th/23rd
New Brunswick	146	29	39	58	20
	38.0 yrs.	48.6 yrs.	41.2 yrs.	33.1 yrs.	30.6 yrs.
	\$ 7,905	\$ 10,788	\$ 8,574	\$ 6,876	\$ 5,410
	21st/14th	21st/18th	22nd/19th	23rd/8th	23rd/14th
McGill (M)	606	119	182	181	124
	42.0 yrs.	51.4 yrs.	45.8 yrs.	38.3 yrs.	33.0 yrs.
	\$ 9,479	\$ 14,043	\$ 10,068	\$ 8,180	\$ 6,131
	4th/15th	2nd/8th	2nd/21st	2nd/18th	11th/19th
Assumption	124	12	37	55	20
	39.5 yrs.	49.5 yrs.	42.4 yrs.	37.1 yrs.	35.0 yrs.
	\$ 8,244	\$ 12,025	\$ 9,207	\$ 7,612	\$ 5,936
	18th/16th	15th/15th	18th/16th	15th/19th	16th/24th
Bishop's	28	10	8	5	5
	41.0 yrs.	50.8 yrs.	42.5 yrs.	30.8 yrs.	29.2 yrs.
	\$ 8,819	\$ 11,200	\$ 8,875	\$ 6,740	\$ 6,050
	17th/13th	18th/22nd	20th/20th	26th/2nd	13th/2nd
Memorial	105	14	25	43	23
	37.6 yrs.	46.9 yrs.	40.7 yrs.	37.0 yrs.	29.9 yrs.
	\$ 7,397	\$ 10,151	\$ 8,428	\$ 7,012	\$ 5,322
	24th/18th	23rd/17th	24th/18th	21st/23rd	26th/13th
Toronto	779	202	190	201	186
	42.8 yrs.	52.5 yrs.	43.2 yrs.	38.5 yrs.	36.6 yrs.
	\$ 9,444	\$ 13,963	\$ 9,969	\$ 7,818	\$ 5,760
	5th/19th	3rd/12th	8th/12th	9th/21st	17th/26th
Dalhousie	149	41	40	46	22
	40.7 yrs.	49.6 yrs.	42.1 yrs.	33.5 yrs.	36.5 yrs.
	\$ 8,455	\$ 11,105	\$ 9,046	\$ 7,030	\$ 5,433
	16th/20th	19th/20th	19th/17th	20th/9th	22nd/27th
Victoria, B.C.	121	11	23	35	52
	39.4 yrs.	53.2 yrs.	45.4 yrs.	40.6 yrs.	33.0 yrs.
	\$ 7,831	\$ 12,582	\$ 9,396	\$ 7,800	\$ 6,156
	22nd/21st	12th/19th	15th/23rd	11th/25th	10th/17th
United College (U)	43	8	5	7	23
	37.5 yrs.	50.9 yrs.	36.7 yrs.	35.7 yrs.	33.5 yrs.
	\$ 7,013	\$ 10,562	\$ 8,100	\$ 6,700	\$ 5,637
	26th/22nd	22nd/23rd	25th/6th	27th/20th	19th/21st
Waterloo Lutheran College	47	6	13	18	10
	39.0 yrs.	50.6 yrs.	42.8 yrs.	35.1 yrs.	34.2 yrs.
	\$ 7,432	\$ 9,692	\$ 8,477	\$ 7,083	\$ 5,350
	23rd/23rd	24th/24th	23rd/22nd	19th/17th	25th/25th

<i>University</i>	<i>All Ranks exc. Deans</i>	<i>Full Prof. incl. Heads</i>	<i>Associate Professor</i>	<i>Assistant Professor</i>	<i>Lecturer & Instructor</i>
Brandon (B)	31 40.6 yrs. \$ 7,861 20th/24th	2 — —	11 50.6 yrs. \$ 9,264 17th/24th	13 34.7 yrs \$ 7,138 18th/15th	5 28.8 yrs. \$ 5,700 18th/3rd
N. S. Technical College (N)	30 41.7 yrs. \$ 8,208 19th/25th	8 49.8 yrs. \$ 10,813 20th/21st	4 — —	18 38.3 yrs. \$ 6,903 22nd/24th	0 — —
Mt. Allison (M)	78 40.2 yrs. \$ 6,983 27th/26th	22 50.2 yrs. \$ 9,214 25th/25th	3 — —	20 40.1 yrs. \$ 6,830 24th/26th	33 33.0 yrs. \$ 5,506 20th/20th
St. John's	17 38.9 yrs. \$ 6,182 28th/27th	0 — —	3 — —	9 46.9 yrs. \$ 6,356 28th/28th	5 26.4 yrs. \$ 5,020 27th/1st
St. Mary's (S)	45 43.2 yrs. \$ 7,185 25th/28th	0 — —	17 50.3 yrs. \$ 8,721 21st/25th	17 42.5 yrs. \$ 6,776 25th/27th	11 33.2 yrs. \$ 5,445 21st/22nd
Lakehead Sherbrooke	No information available for the separate ranks.				
Jean de Brebeuf					
Laurentian					
Montreal	Data missing for salaries or ages or both.				
Sir George Williams					
St. Francis Xavier					
All 28 institu- tions combined into one group	6086 40.3 yrs. \$ 9,061	1284 49.9 yrs. \$ 12,934	1568 42.7 yrs. \$ 9,843	2045 36.4 yrs. \$ 7,767	1189 33.3 yrs. \$ 6,075

EXPLANATION OF THE SYMBOLS USED IN THE TABLE

The four entries in any column for a particular university have the following meaning:—

Line 1: The number of persons in that rank.

Line 2: The average age of these persons in 1962.

Line 3: The average salary of these persons in 1962-63.

Line 4: Two figures giving the position of that institution in a list of all the universities arranged:

(i) in order of decreasing average salary for that rank

(ii) the same but with a correction for age — \$400 per year as explained in the text of the report.

“—” Indicates too few members for statistically valid results.

(These members are, however, included in the figures for “All Ranks”.)

A: University of Alberta figures exclude 46 individuals whose ages are not known.

B: Brandon College figures exclude one Full Professor.

M: Salary figures for McGill and Mt. Allison were computed by D.B.S. and differ slightly from those supplied by the local association and published in the December 1962 C.A.U.T. Bulletin.

N: N. S. Technical College figures exclude two Instructors.

S: Saint Mary's College figures exclude one Full Professor.

U: United College figures for both salary and age are not from D.B.S., but are official.

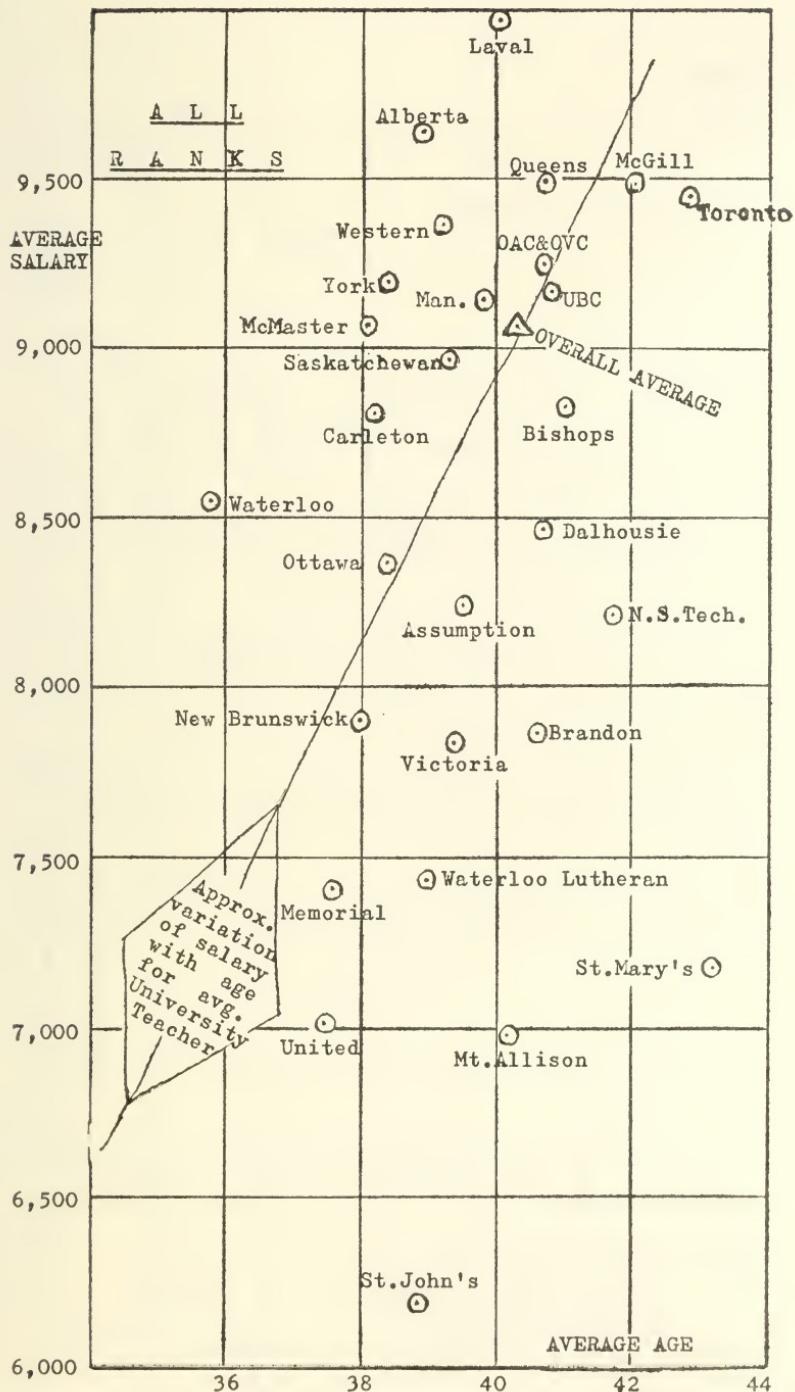


FIGURE 1. Plot of Average Salary and Average Age for All Ranks combined.
(Deans are excluded.)

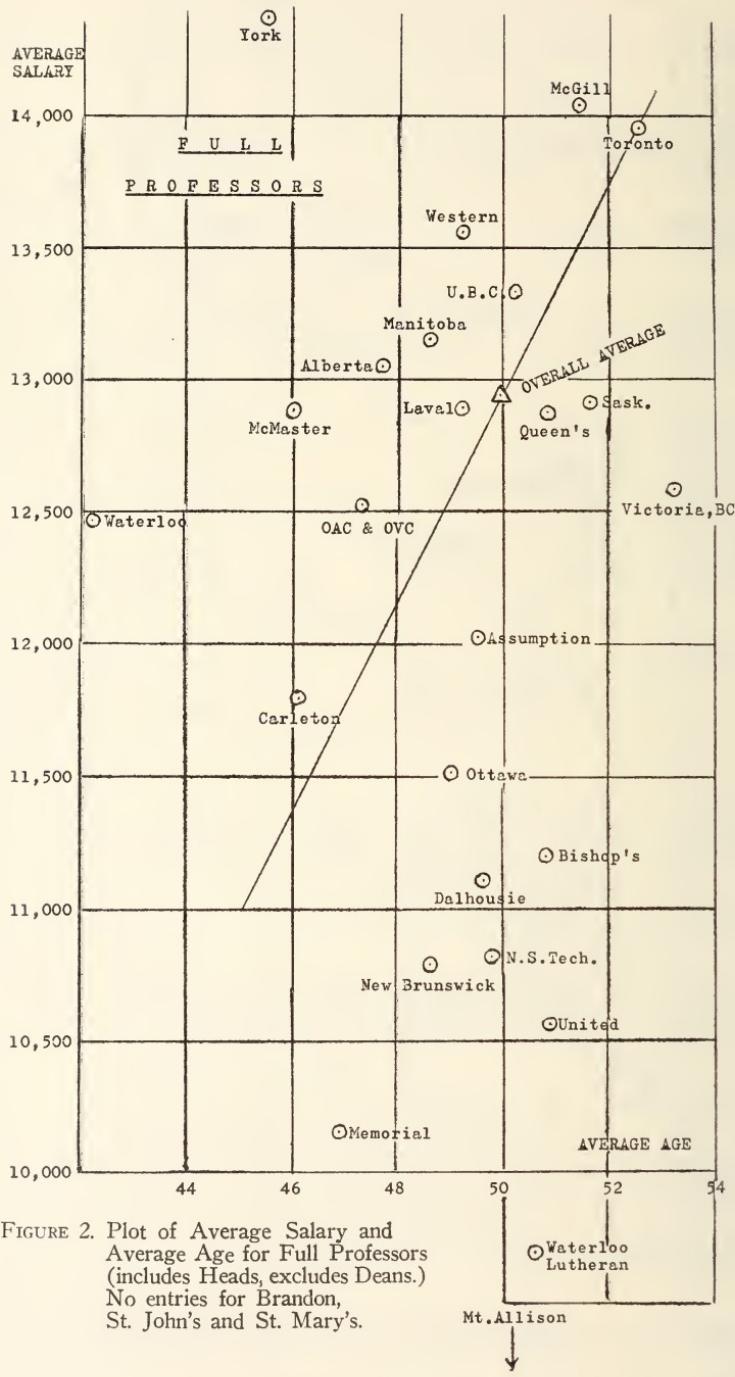


FIGURE 2. Plot of Average Salary and Average Age for Full Professors (includes Heads, excludes Deans.) No entries for Brandon, St. John's and St. Mary's.

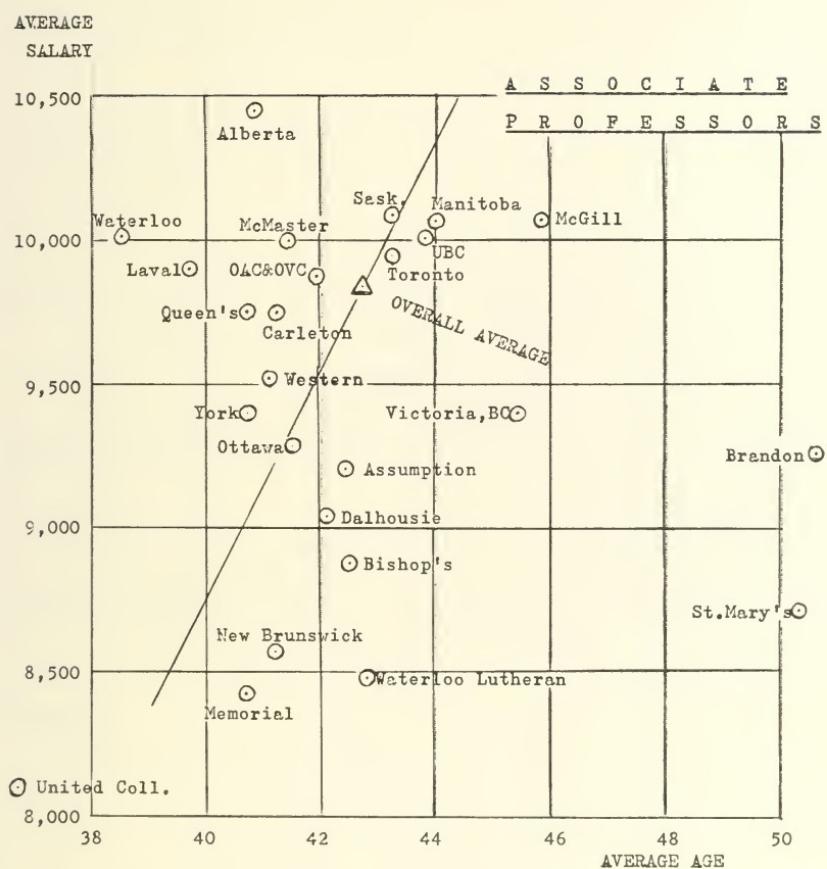


FIGURE 3. Plot of Average Salary and Average Age for Associate Professors. No entries for Mt. Allison, N.S. Tech., and St. John's (too few Associate Professors for significant data).

AVERAGE
SALARY

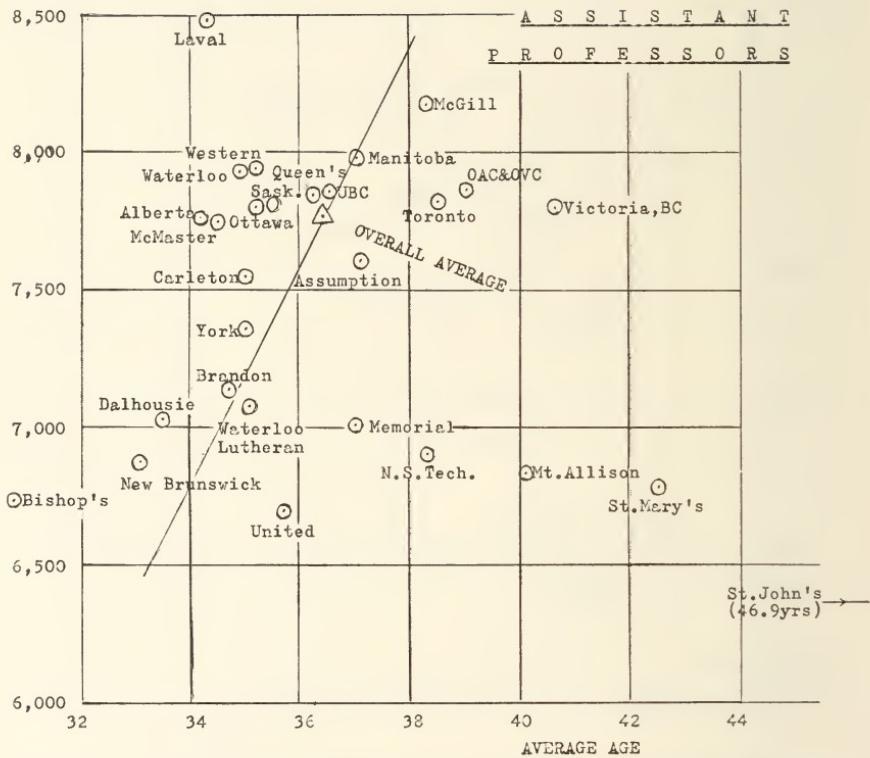


FIGURE 4. Plot of Average Salary and Average Age for Assistant Professors.

AVERAGE
SALARY

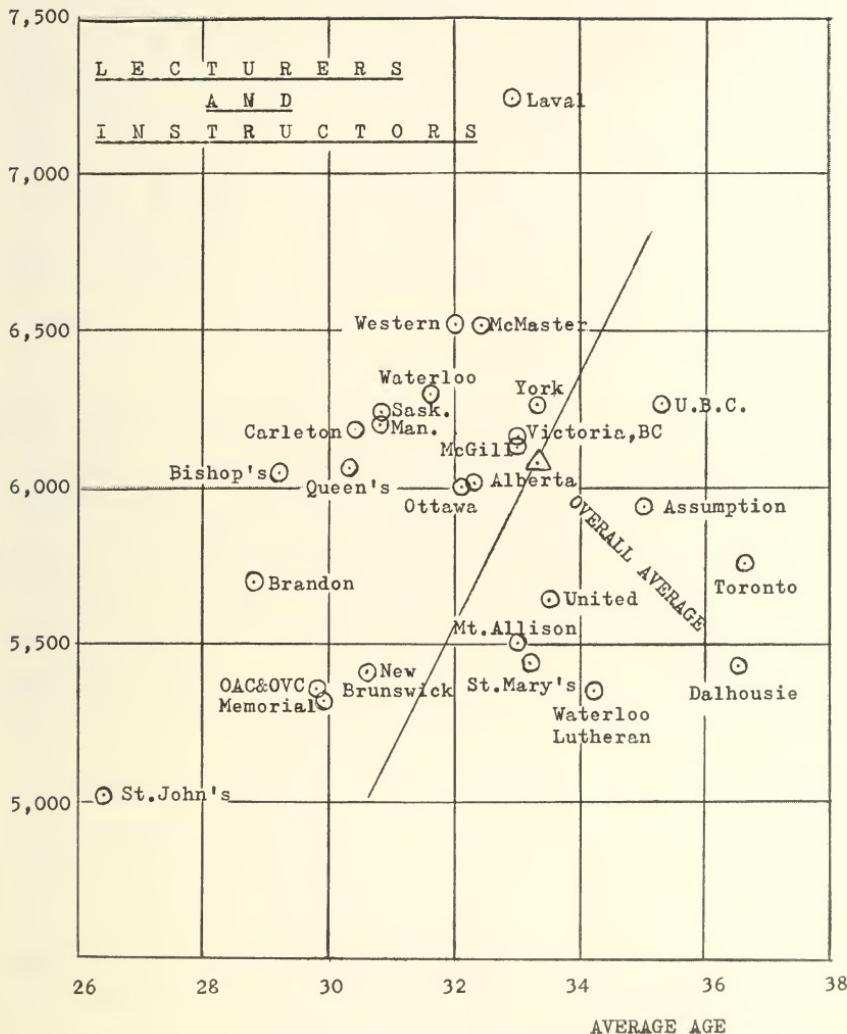


FIGURE 5. Plot of Average Salary and Average Age for Lecturers and Instructors.
(No entry for N.S. Technical College.)

THE NUMBER OF UNIVERSITY TEACHERS: NEEDS AND PROSPECTS

W. P. Thompson*

Everyone seems to agree that the most difficult problem facing universities as a result of the great growth in the number of students is securing a sufficient number of properly trained teachers. The other problems, such as finding enough money for all purposes including the renumeration of the teachers, may be difficult, but they are straightforward problems which can be solved if the public is convinced of their importance. But a sufficient number of adequately trained teachers cannot be hired if they do not exist. Although much alarm has been expressed, the dimensions of the problem have hetherto been stated only in general and vague terms. A more precise statement has been made possible by some recent studies.

The well known projections of Dr. Sheffield have shown what the total needs will be without providing information in regard to the individual disciplines. In 1960 he estimated that the number of university teachers in Canada must increase from 7,450 in 1958-59 to 18,000 in 1970-71 in order to keep up with the increase in the number of students from 102,000 to 229,000.¹ Two years later he found it necessary to raise the prospective number of students in 1970 to 312,000.² Consequently the number of teachers required in 1970 must be raised to more than 24,000 or more than three times as many as there were at the first of the decade of the sixties.

The training of the additional teachers as well as the necessary replacement is the responsibility of Canadian graduate schools. Even if we were willing to depend on other countries, the number available from them will be small because they face the same problem. In fact because of the enormous prospective requirement in the United States and the attractions of its institutions, we are likely on the whole to lose more university teachers, trained and in training, to other countries than we gain from them. That will certainly be

*President Emeritus, University of Saskatchewan.

¹E. F. Sheffield, *Staffing the Universities and Colleges of Canada* (Canadian Universities Foundation, Ottawa, 1960).

²E. F. Sheffield, *Enrolment in Canadian Universities and Colleges to 1970-71* (Canadian Universities Foundation, Ottawa, 1962).

true if salary scales in Canada are allowed to fall below those in the United States.

The number of enrolled graduate students and of graduate degrees conferred annually in the sciences is given in a recent book by the writer.³ The number of theses accepted for graduates degrees in all subjects in 1960-61 is given in a recent publication by the National Library.⁴ That report provides the name of the author and title of every thesis as well as a summary of the numbers accepted for the doctorate and for the various kinds of master's degrees in the different subjects in the different universities. The numbers in the basic sciences as reported in the two publications are in good agreement but there is some discrepancy in relation to the applied sciences.

I hope it will be generally agreed that permanent members of university faculties should be trained to the level of the doctorate or its equivalent, at least in most subjects. At any rate the rest of this paper is concerned only with persons at that level. Data regarding the doctorates as given in *Canadian Theses, 1960-61* have been classified and summarized in the accompanying table. The numbers in the different subjects in the different universities are precisely as published by the National Library with the following exceptions: (1) botany and zoology have been combined with biology; (2) a thesis accepted at the Pontifical Institute and three at Victoria have been placed under Toronto; (3) one classified in a special category as "military" and dealing with the infantry in the armies of Edward I has been placed in history.

It will be observed that the total number of theses accepted for the doctorate in 1960-61 was 323. Disregarding all other factors, it would take more than 50 years at that rate to produce the new teachers who will be required in 7 years. Factors which make the situation even worse are as follows: (1) by no means all fresh Ph.D.'s join university faculties — for the sciences the best estimate is less than one-third; (2) replacements must be provided for those teachers who are lost through death, retirement, or removal to other occupations or to other countries. Factors which may reduce the

³W. P. Thompson, *Graduate Education in the Sciences in Canadian Universities* (University of Toronto Press, 1963).

⁴*Canadian Theses 1960-61* (National Library of Canada, Ottawa, 1962).

Number of Theses Accepted for Doctorate in Different Subjects in Different Universities, 1960-61

	Alberta	B.C.	Laval	McGill	McMaster	Manitoba	Montreal	N.B.	Ottawa	Queen's	Sask.	Toronto	West Q.	Totals
Sciences														
Biology	2	2	9	2	2	1		1		2	9	4		34
Chemistry	4	4	1	12	4	1	2	4	9	3	2	15		61
Geology	2			6						1		3		12
Math.	1			2	1		1			2		1		8
Physics	4	3	5	4			2			1	2	3	4	36 151
Agricult.	1		5		2			1	1	4	2	1		17
Engin.			1			1		1			3			6
Medicine			20			4				1	4	1		30 53
Social Subjects														
Econ.			4						1		2			7
Geog.											1			1
History						1						6		7
Pol. Sci.				1					2					3
Psychol.	2		7			9		16			3		37	
Sociol.											1			56
Educat.			1						5		4			10
Law									1		1			2 12
Humanities														
Linguistics						2								2
Literature														
Canad.			2			2			1					5
English						2		6			9			17
Other	1	4				2					4			11
Philosophy		2			1		2			5				10
Theology		1			2					3				6 51
Totals	11	12	14	72	11	5	32	4	44	10	11	87	10	323

seriousness of the situation are the importation of teachers from other countries, a higher rate of production of Ph.D.'s, and the employment of persons who lack the doctorate particularly in some kinds of professional schools where the Ph.D. is not regarded as essential. The combined effect of these factors cannot, of course, be estimated accurately. But as pointed out previously our gain from other countries is likely to be balanced by our loss to other countries. And there is little indication of a substantial rise in the rate of production of Ph.D.'s, certainly not enough to have any pronounced effect in the time available. Even if it were considered satisfactory that only half the teachers should possess the doctorate, and even if all new doctors were to become university teachers, it would take at least 25 years to produce the number required by 1970.

Apart from the general inadequacy of the numbers a striking general result is the fact that a large proportion of the doctorates are in the natural sciences : 151 in the basic sciences to 56 in the basic social subjects and 51 in the humanities ; 53 in the applied sciences (agriculture, engineering, and medicine) to 12 in education and law. Moreover 37 of the 56 in the social subjects are in a single subject, psychology (16 in one university) ; and many of the 37 could equally well be placed in the sciences since the titles of the theses show that they are of a physiological or psychiatric nature.

Disregarding the applied subjects for the moment, the number of teachers who will be required in the basic sciences in relation to those in the social subjects and humanities cannot be determined accurately by estimating the number of students registered in the different faculties, since students in each type of faculty take varying amounts of work in the other faculties. But a reasonably accurate comparison may be made by comparing the numbers of present faculty members. An examination of the lists of teachers in several universities which have typical establishments of faculties shows that the present numbers of teachers above the level of part-time sessional appointees are approximately the same in the basic sciences as in the social subjects and in the humanities (for example in one institution 7:6:8). Therefore, the number of doctorates actually conferred in the sciences is out of all proportion to those in the other areas — three to one instead of one to one.

In this connection it should be pointed out that six of the thirteen universities which conferred the doctorate did so *only* in the sciences, and that two others conferred only one or two doctorates in all the other subjects put together (see table). Apparently only five institutions make any serious effort to carry students through the doctorate in the social subjects or humanities. Although only 13 institutions conferred the degree in 1960-61, 15 offer work leading to the degree (according to Thompson), but two made no awards in that year. Those two offer the degree only in the sciences.

The reason for the great disproportion cannot be a matter of cost since research and advanced teaching in the sciences are much more costly than in the other areas, although it must be admitted that more money may be available for scientists from outside sources. Other possible reasons may be suggested for consideration :

(1) a difference in the number of suitable fellowships and assistantships; (2) an established tradition owing to the greater number and variety of subsequent jobs hitherto available; (3) less interest on the part of many social scientists and humanists than on the part of natural scientists in original scholarly work; (4) less inspiration to their students to proceed to graduate work at the doctoral level. At any rate it appears that the attitude of many scientists must be different from that of many non-scientists and that the difference is recognized in general university policies.

The situation in some individual subjects may next be examined.

The small number of doctorates conferred in the social subjects — one each in geography and sociology, three in political science, and seven in each of economics and history — is obviously far short of the need. The single accepted thesis in sociology could equally well — to judge by its title — be placed in economics. The title of the single thesis in geography shows that it belongs in the social subjects, not in the natural sciences. A very striking result is that two-thirds (37 of 56) of all those classified in the social subjects are in psychology. Does this mean only that psychology should have been classified in the natural sciences? It should also be kept in mind that a considerable proportion of those who take Ph.D.'s in economics go into business or government service.

Even though the doctorates in the natural sciences greatly outnumber those in other areas, it is clear that even they are far short of the need. Mathematics is an especially weak spot with only eight, although mathematicians are in great demand. Moreover, a large percentage of fresh Ph.D.'s in the sciences go into industry, the professions, or government service. Precise information on this point comes from two sources: (1) according to Thompson (cited above) the deans of graduate schools estimate that less than 20% of Ph.D.'s in chemistry, 33% in physics, 5% in geology, and 50% in biology join university staffs; (2) Stock and Beaulieu⁵ showed that of the science students who received their Ph.D.'s in 1960 and immediately took jobs, only 27% joined university staffs, 23% went into government service, 23% into other occupations in Canada, and 26% into various kinds of employment in other countries. Twenty-eight percent of all science students who received the Ph.D. in that year did

⁵E. H. Stock and P. J. Beaulieu, "Science Postgraduates in Canadian Universities", *Canadian Public Administration*, III, no. 4 (1960).

not take employment at once but continued their studies at the post-doctoral level. Probably a somewhat larger percentage of them than of those who took jobs at once will eventually join university staffs.

In institutions which have schools of agriculture the teachers listed in agricultural subjects are approximately half as numerous as those in all the basic sciences combined. And most of the 17 theses classified in agriculture by the National Library could equally well be placed in biology — those in such fields as genetics, plant pathology, or plant physiology. Apparently they were classified in agriculture if the organisms which provided the materials of study are agriculturally important. Some of them were accepted in universities which have no agricultural faculty. The titles of the theses indicate that in general graduate faculties insist that students who are classified as agricultural must work on fundamental problems.

Many of the 30 classified in medicine are really in physiology or biochemistry. Although medical schools list more teachers than other schools in proportion to the number of students, few medical teachers outside such basic subjects as physiology and biochemistry possess the Ph.D., although they may have other distinctions which are regarded as equivalent. Similarly few teachers of engineering possess the Ph.D., although the number of teachers listed in a large engineering school approaches the total in all the social subjects in the same institution. It may be doubted whether many have distinctions equivalent to the Ph.D. Only six students took the Ph.D. degree in engineering in 1960-61, but a large number (150) took the master's degree.

A general point of considerable interest is the similarity in the number of doctorates conferred by different universities: Alberta 11, British Columbia 12, McMaster 11, Queen's 10, Saskatchewan 11, Western Ontario 10. This appears not to be a mere coincidence since there has been a similar situation in earlier years. The number of undergraduates differs widely among these institutions. And the amount of doctoral activity differs from department to department in the same institution. But it appears to balance up to the same total.

It is clear that unsatisfactory measures will have to be adopted in the attempt to meet the problem. No doubt the one used most extensively will be the employment of inadequately trained teachers,

but presumably such measures as excessively heavy teaching loads and excessively large classes will also be common. Although some universities may be able to meet the problem by limiting enrolments, it is to be hoped that the limitation will not be applied to the total seeking enrolment in Canadian institutions. It should be emphasized again that if salary scales in Canadian universities are allowed to fall below those in the United States, the problem will quickly become much worse.

The basic sciences (except mathematics) will be in a much better position than the other disciplines. Even though the expansion of graduate work may have no great effect in the available time, the eight universities which grant the Ph.D. only in the sciences and the two which grant that degree to only one or two students in other subjects annually (out of the fifteen institutions which offer work for the degree) should seriously consider extending their graduate work to the doctoral level in non-scientific fields. If they are able to carry on satisfactory doctoral work in the sciences, there appears to be no sufficient reason why they cannot do so in other fields.

THE ACADEMIC AND THE ADMINISTRATOR: A COMPARATIVE ANALYSIS

J. Archibald McIntyre*

The University professor and the University administrator, in this paper referred to respectively as "the academic" and "the administrator", display sufficiently clear-cut behaviour patterns to permit an examination to be made of these occupations within a series of broad if not all-inclusive frames of reference.

The kind of work world in which both the academic and the administrator carry out their tasks may be regarded as a community of scholars, or more simply as an institution primarily oriented to the teaching of students. The balancing of budgets, the maintenance of grounds, the planning and design of buildings and the letting of contracts, the registering of students, the keeping of accounts, the purchasing of supplies are also part of this work world. The overall and pervading purpose of this work world is, however, fitted under, if not clarified by, the term education.

Viewing the University as a work world is in itself a frame of reference. It implies that any analysis of work activity in a university will be focussed upon the processes by means of which levels of effort and product are determined.¹ In a sense such a frame of reference may be considered too cold and rational for an activity such as the academic, which may more happily be thought of (it may be argued) as a professional art even though the frame might quite readily and appropriately be applied to the administrative functions.

It may as readily be argued — and with greater cogency — that it ill serves the cause of clearer understanding to cloud issues with emotion. A recognition that the academic and the administrator are both engaged in work, the nature of which is vastly different even though the 'work world' in which both act is physically identical, may permit some degree of objective analysis. Such an analysis can be very revealing if the activities being compared are sharply contrasting and pivotal.²

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¹Hughes, E. C., "The Sociological Study of Work: An Editorial Foreword", *A.J.S.*, LVII (1951-1952), p. 426.

²Hall, O., "Half Medical Man, Half Administrator: An Occupational Dilemma", *Canadian Public Administration*, II (Dec. 1959), p. 194.

The career academic and career administrator are in polar activities. This normally would be adequate contrast. What sharpens the implications of the comparative analysis is the fact that both careers are rooted in an institution which nurtures whatever professional characteristics the respective activities possess. It is, in other words, the fact that these activities are practised in the university which etches the implications so sharply. From these physical and social relationships there is literally no escape if one would maintain the image of the professional academic, since his functions are only practised within the University.³ This is frequently only partially true for the administrator who could, for example, practise his accounting skill as readily in an industrial enterprise as in a university.

There is still another factor. The administrator is with great frequency a former academic. Hence he is doubly involved and more intensively in conflict than might be the case if the career steps to administrator were more sharply distinct than those leading to the academic.

One might suppose, on the other hand, that under such circumstances, it would be desirable and efficacious to promote into administrative positions persons originally engaged in academic tasks. Since as we have noted to a great extent this is the pattern, we might presume such a pattern to be well regarded among those toiling in this work world. Given our society's general orientation to "advancement" and "upward mobility" as measures of success, coupled with the fact that for persons accepting these occupational changes, the administrative task is likely to be more remunerative than the academic, it might very well be assumed that becoming an administrator would be an accepted and perhaps sought after ladder to higher status, power, and an improved self-image.

The comparative analysis offered in this paper is an effort to delineate and clarify the sharp differences characterizing these two occupations. It suggests that the fact they occur in the same work world is likely superficially to obscure these critical differences. It offers some reason to believe that not only is a leap from academic to administrator not regarded by the academic as a valid indication of higher status but that such a step may be considered rather like

³Millett, John D., *The Academic Community* (McGraw-Hill Book Co., 1962), p. 71.

"joining the enemy". It suggests that the discrete difference in the concept of time and the means of achieving objectives characterizing these two occupations may throw some light upon the hazards which lie in wait for those who attempt the leap.

Finally it suggests one course of action which might permit a more effective, less conflict-ridden articulation between the distinct work worlds of the academic and the administrator.

Preparation for entrance to this work world

The Academic

The training of the academic is long, arduous, and costly. It is an intensive preparation with rigorous emphasis upon the meeting of formal requirements such as successful completion of examinations, theses, dissertation, and subjecting oneself to ruthless criticism, to be capped one day by the admission to professional ranks through the granting of a degree — all within the frame of reference of the maintaining of professional standards. For those who survive the sometimes lengthy, often professionally impersonal "preparation", a certain aura of uniqueness exists setting one somewhat apart from "non-professionals", and from one's colleagues in other disciplines. The uniqueness is not only in attitude but may be noted also in language, what one talks about, and the level of abstraction characterizing such interchange. Depending upon one's point of view this is variously described as "vast erudition" or "intellectual snobbery".

An additional aspect of the training contributing to the feeling of separateness is the highly fragmented division of labour between and within discipline and subject. The consequent specialization produces vast chasms which are not easily bridged even within the academic world quite apart from the rest of society.⁴

One's "training" as an academic may often include some teaching. This may range from part-time teaching to grading essays or tests and taking over an occasional seminar. In any case the contact with the student is less an integral highly-valued part of the preparation of the professional than it is a somewhat haphazard and fortuitous pattern with the manifest purpose of assisting an over-worked professor.

⁴See for example Snow, C. P., *The Two Cultures* (Cambridge University Press, 1959), and Millet, J. D., *op. cit.*

As one might expect a latent effect occurs. The neophyte learns not only that no special skill, preparation, or training is demanded for the teaching part of the occupation of the academic, but that this part of his "becoming a professional" is vastly less important when compared with the achievement or high grades or scholarly investigation and research. These latter activities are subjected to the closest scrutiny and criticism, resulting in the not unanticipated consequences upon the neophyte of a degree of disinterest for teaching — or at least a sense of guilt if one is too interested in this phase of one's work — and an over-emphasis upon publication as the appropriate measure of one's professional success.⁵

In addition one learns that research takes time, that one may not legitimately expect results to be ordered at a pre-determined pace, that patient, meticulous self-appraisal (as applied to one's own work) is obligatory, that reading, discussion, and thought (all time-consuming processes) are essential to retain any degree of freshness, originality and provocativeness in one's work. Finally one learns that success or failure, hence prestige and esteem, rest upon the appraisal by one's colleagues whereas institutional status and personal income are determined by one's local administration, at least in the final analysis.

The Administrator

The preparation of the administrator for his work activity is somewhat different. Although an important exception in prior preparation for administrative work exists in the case of certain subjects in "administration" offered at some universities, e.g. programmes for hospital administrators, there has yet to be a recognition that formal academic-type preparation for administrative work is not only logical but possible.⁶

The university work world for the administrator is largely similar to the work world of economic institutions and, as Hall points

⁵Beye, C. R., "The Age of the Scholar-Teacher," *The Atlantic Monthly*, CCVII (1961), p. 76.

"What our tradition demands then is scholar-teachers. These are not created overnight, and, indeed, generally fail ever to come into being, which is well-known to anyone in the academic profession... In the early years, the all-important years of graduate study and the instructorship, the young person is almost forced to misconceive his future role in the profession."

See also: Caplow, T. and McGee, R. J., *The Academic Marketplace* (Basic Books, 1958), p. 221.

⁶Taylor, M., private letter.

out in reference to the business organization, "training is incidentally, but importantly, a matter of learning the ropes of the organization and learning to get along with his fellows."⁷ As we have already noted, a high percentage of the university administrators are former academics. But as we shall see the nature of administrative activity differs sharply from the nature of academic activity. At no place is this difference more forcefully driven home than when the academic, lately appointed an administrator, gets the full impact of "learning the ropes". His learning is almost entirely by doing, attempting to reach conclusions and to make decisions by logical methods and in many instances scientific analysis. A constant frustration for which there appear to be no answers is the number of variables, inconstant and sometimes unpredictable, which characterize so many of the facts by means of which one must make decisions. These facts are frequently people. Since a body of knowledge tested, refined and shared by colleagues is rarely available for support he quickly learns to secure from precedent and past action the comfort and security formerly available through the academic role.

Patterns characterizing Action

The selection of the academic is as has been indicated a question based upon somewhat rigid requirements in one sense (that of degrees, and scholarly achievement or at least potential) and apparent extreme flexibility in another (teaching ability may not even be mentioned and sometimes even an interview is not conducted).

From this beginning the academic, after sharing in the decision with respect to what subjects he will teach, proceeds to decide on a text, how the subject will be organized and taught, within some limits how often he will meet his students, what essays they will write, what form the tests and examinations will take. To a great extent he sets the standards of his own performance, then conducts an assessment of how well all this has been done. Virtually in this aspect of his role he judges himself.

On the other hand when he turns to research the academic, while still generally free to study what interests him, is in no sense a judge of his own work. In this aspect of his role he succeeds or otherwise on the basis of the re-investigation and testing of his

⁷Hall, O., *op. cit.*, p. 187.

hypotheses and conclusions and the critical scrutiny of his published work by qualified colleagues.

In both aspects of his role he is quite literally on his own. The controls on him to achieve excellence are internal as an aspect of being in a particular, specific profession. In only a limited sense — if at all — is he directed or supervised, or is he an instrument for objectives beyond his control or knowledge.

Little if any check is made upon the academic's activities with respect to how hard or on what he is working. Indeed all the tests applicable to most work situations are simply inappropriate. The classic demonstration of the futility of the usual means of assessing work effort is the fact that when the academic is sitting feet on the desk, note-book in hand, apparently "doing nothing," he may well be "working" at his maximum effort.

Presumably published material, or the lack of it, is the indication of what is happening as far as research is concerned.⁸ With respect to teaching, unless a specific request to do so has been issued no one considers it 'good form' to sit in on a colleague's class. Since a request to do so could easily carry implications of inadequacy or incompetence it is a rare event.⁹ The assumption behind this is that "if the chap is a scholar — truly a scholar — he just cannot help being a good teacher". Implicit is the idea that promotion if and when it comes will be based on merit.

Of the essence in the academic role is the concept of time. As we have noted research is a slow process. In a separate and different sense when haste is introduced into the learning process results are often disappointing. Hence the pace in both functions — research and teaching — is unlikely to be forced. Little emphasis is placed upon strict time schedules (except in so far as time may be critical for experimental purposes or meeting classes). The concept of a rigorous 9 to 5 schedule is virtually unknown (after all ideas, that is, intellectual conception, may occur at any time).

It is erroneous to conceive of the concept of time as if the academic regarded it as limitless. Such is far from the case. Nor is

⁸"In a community of scholars, scholarly performance is the only legitimate claim to recognition." Caplywy and McGee, *op. cit.*, p. 224.

⁹Homans, G. C., "Social Behavior as exchange," *American Journal of Sociology*, LXIII (1957-58), p. 597.

the academic free of the necessity to meet deadlines, which action wherever it occurs has a large component of time. It is rather more that the academic experiences a large amount of privacy in his work. This is a freedom from 'the interference of working for someone', as this expression is used in a bureaucratized organization. The academic will normally have a relationship to a department head or a dean. These officers have important functions to fulfill. The control effect upon the academic occurs in two ways. Although he tends to see himself as free and autonomous, evaluated only by his peers, the element of external authority apart from peers enters the picture when such issues as salary, rank and some other prerogatives are considered. This latter is personal, arbitrary and essentially illegitimate control according to the authors of *The Academic Marketplace*.¹⁰ One might concede that these aspects of authority on occasion may appear capricious. To the extent that such authority is accepted and followed even grudgingly, it is however wholly legitimate. In actual fact the basic issue involved here emerges quite logically from the differences in social structure to be found in the academic and administrative work worlds.

The academic is disciplined through the institutionalized behaviour characterizing the professional. It is an element of his self-image — a kind of self-discipline — mainly independent of organization, or interpersonal relationships with department head or dean. While this academic social structure certainly displays hierarchy of status, and gradation of distinction and achievement, the authority in the community of scholars emerges from within its members based on what one's colleagues regard as meritorious work. One could hypothesize that the more effective the scholar, the less he will be identified with the organization as such, that is, with the university, and hence the better the organization will be. This rests upon the assumption that a university not only mirrors its community but reflects the individual differences, idiosyncrasies and creativity of its scholars. Hence if these academics are not positively and paramountly interested in their own creative activities (and permitted to be) then the university would cease to be a university; presumably it might function as some other kind of educational institution.

¹⁰P. 228.

The administrator on the other hand is faced with an activity critically different in a variety of aspects. The major critical differences are the social structure, the concept of time and the concept of authority. The administrator's activity is largely bureaucratically organized, roughly approximating Weber's pure type of legal authority.¹¹

In the first instance the objectives and tasks characterizing the activity tend to be rational and formalized. Objectives are largely achieved through the efforts of subordinates. This necessitates ideally a clear-cut division of responsibility, authority, task definition and attention to time. So much time to accomplish so much work is a pronounced characteristic of administration. It is nurtured alike by the singular identity that deadlines come to possess in and for themselves as well as by the ever present element of the cost of work crystallized by the expression 'time is money'.

How well the administrator performs his task is judged by his superior in the hierarchy. The appraisal of his work is applied to him, or in a sense imposed upon him, in part by objective results achieved and in part by the view of the objective results held by the superior. In a very real sense the achievement of objectives may be ordered. To some extent he is an instrument by means of which objectives largely outside his control are achieved.

In this sense then the administrator has little if any identity (in the sense of work) apart from his occupational role in the organization. It is not surprising that his work activity becomes all-enveloping. The planning, the budgeting, the reports provide meaning and identity and are means to success. In a sense for the administrator the successful completion of these tasks is the purpose of the organization. "In the case of the administrator it is possible for self and organization to become identified."¹²

The Academic as an administrator

The issue comes alive when the academician is appointed to an administrative post. In actual fact the administrator learns that his special competence in the academic sense does not aid him in any helpful way. His task (as an administrator) is largely planning,

¹¹Weber, Max, *The Theory of Social and Economic Organization*, tr Henderson and Parsons (Free Press, 1947), p. 333.

¹²Hall, O., *op. cit.*, p. 193.

arranging, negotiation, controlling, budgeting; the objectives within these activities are to be achieved through and by the efforts of other people, some subordinate, some peer, and some more senior in the hierarchy. Becoming competent in the administrator's sense then is the process of learning the way of doing business, or accomplishing objectives, particularly those referred to as "between the lines". These patterns, of course, consist not only of ways of handling the volume of paper work but also of acceptable action when dealing with people, and successful decisions as to which people to deal with.*

It is this latter aspect so characteristic of administration which is the most nebulous, the most difficult to teach, the most likely to deterioriate into "manipulation" — hence the most serious hazard for the neophyte and seasoned administrator alike.

As has been noted our society places high value upon vertical mobility coupled with increased earnings. In the university setting this is represented either by promotion in rank or by promotion to an administrative position.

In the latter event as has been noted the primary issue for the newly appointed administrator becomes the achieving of objectives. To put it another way, accustomed to achieving action through his own efforts and within the general frame of reference of the academic described above, he must now achieve action largely through the efforts of other people. In most circumstances he will receive little if any guidance or "training" with respect to how this is to be accomplished. The extensive, thorough, and subtle indoctrination he experienced while becoming a member of a profession (which among other purposes equipped him with a method to follow in taking action as well as an ethic to support his behaviour patterns) he will find totally lacking. As a result of the "way of working" characterizing his academic career he is largely unfitted for his new role. It is almost as if the promotion and accompanying increase in income were compensation for undertaking a distasteful, badly articulated, relatively low-demand activity to undertake which one need not have prior preparation nor special attributes. Indeed as

*The implications and ramifications of the informal components and aspects of these occupations are not discussed. To introduce such considerations would not add measurably to the present analysis of ideal types. Such a comparative study will be the subject however of a subsequent paper.

has been noted already the skill requisite to perform the activity effectively occurs (when it develops) as a part of the experience of doing the job.

The major areas of difficulty in the administrative activity are centered in the question of achieving objectives through the efforts of other people and in the element of time. A further complication exists in that some of the people through whom objectives must be achieved are subordinates and others may be at the same level in the hierarchy or in more senior posts. These groups may be further sub-divided into those people who are non-academic and academic, neither of whom will experience similar motivation nor will likely be easily molded into any kind of "team effort". Such a team is not easily molded because of the distinct differences in the respective social structures and all of the normative patterns, prestige, status and authority implicit therein. Indeed it could be forcefully argued that without a point of articulation by means of which these two social structures might be joined the only means of control, hence achieving of results, rests in the element of power available to the administrator due to what is sometimes termed his authority (in essence, the control of the finances). The "galling subjection" which is "presumably responsible for the combination of private resentment and public submissiveness that so often characterizes the faculty attitude toward administrators"¹³ is not therefore to be attributed to academics who feel they are too good or too wise to be subjected to discipline as ordinary mortals nor to the result of capricious whimsy on the part of the academic turned administrator who has insufficiently done his homework. The resentment and conflict arise from the interpretation of status and role applied by those functioning within the respective social structures.

Whereas the academic turned administrator has been accustomed to behave with his colleagues as professional persons, the introduction by him of personal relationships into the hierarchical impersonal relationship of his administrative role will be a source of tension and uncertainty to those subordinates accustomed to a kind of "distant" supervision. Indeed a formal, clear-cut definition of rules, and strict adherence to the hierarchical order can be considered among the important "professional" aspects of non-academic work relations — in a sense the traditional ethic as viewed by the administrator.

¹³Caplow and McGee, *op. cit.*, p. 228.

Combined with the "working regulations" characterizing the informal side of these interrelationships they constitute the controls or the means of achieving objectives. By attempting a break-through from the accepted and expected formal relationship to the largely unanticipated informal, the newly-appointed administrator commits an act as gauche as would be the case if, as a graduate student, he referred to a professor of stature, scholarship and tenure by his first name.

One concludes that the role of the administrator is rooted in a structure of relationships and expectations as complicated and constraining as that of the role of the academician. It is a role requiring intellectual qualities of a high order, the application of which may create a brilliant performance. Such a role stands on its own merit as an administrative function, not as an academic. As we have noted these are not related functions and hence cannot be successfully measured by the same criteria.

To assume that a person would become a successful administrator solely because he has achieved eminence as an academician ignores the structure of the new role and hence the requisite preparation for such an activity which might enable the task to be conducted with professional effectiveness. To view the administrative role as professional suggests that the administrative position can be more effectively filled by a person who has undertaken preparation for it as opposed to one who has just grown into it. It may be that educational institutions will come to terms with these implications. In such an event, nothing would prevent an academic from moving into an administrative occupation any more than is the case at present. However, it would be clear that preparation as rigorous in its way as that for academic work must be satisfactorily completed as a prerequisite to such an appointment. In such a situation neither the academic nor the administrator would be regarded as being engaged in the "more important", "more necessary" or "more demanding" activity. These simply would be different holes requiring rigorous preparation with status and hence remuneration based upon the meeting of standards indigenous to the occupation as such.

Some general observations

A critical aspect of the analysis is the realization of the necessity for a smooth articulation between these two social structures if the most effective results are to be obtained.

Clearly we are in our present state in universities because of the application to this institution of bureaucratic organization. In a sense the rationalizing of purpose, method and control causes this. The bureaucratization of the university is quite far advanced but meets increasing opposition.¹⁴

Whether or not the institution has experienced bureaucratization is not the basic issue. It may well hasten the "increasing opposition" but the basic issue remains. Two quite distinct social structures personify the university; their aims are only superficially similar; their significant differences separate them and cause unproductive friction which it appears impossible to resolve.

The existence of two distinct social structures may be denied. If this occurs it seems likely that the one to be recognized will be that of the administrator, namely the rational bureaucratic social structure. This would then mean that the purpose of the institution would undergo change to permit a more rational, hence controllable definition of the academic's task, method and hence evaluation; for example, research and teaching would presumably be separated. All of which would put the "university" on a more "business-like" basis. This appears to be the trend.

On the other hand the idea and the implications of two distinct social structures may be accepted as an indication of the uniqueness of the university as an institution. It works in spite of rather than because of the way in which the institution is organized for work. In the final analysis the work of the academic is the essential reason for the existence of the institution; the administrator has the role of secondary significance. Neither can function without the other, but the primary function can readily become obscured in the rationality of the secondary function, the more so because the work world of many of the institutions (business) with which the administrator is familiar and from which he draws his model is composed of one social structure organized bureaucratically.

A recognition of the existence and importance of these two social structures will mark a willingness to develop patterns of action, decision making and authority embracing and embodying this duality. Much of the future administrative work of the University

¹⁴*Ibid.*, see in particular pp. 238-255. Morton, W. L., "University Government: The Alienation of the Administration," *The C.A.U.T. Bulletin*, IX (1960), p. 5.

will have to be done by career administrators, not "promoted academics," if any semblance of success is to be achieved in getting the necessary academic staff to meet the rising number of students about which forecasts warn us. The academic would view this with equanimity rather than alarm if the ultimate decision-making and authority in the University reflected a recognition of the dual social structures and the primacy of the academic function. This articulation will prosper best in the absence of formal legislative-type acts. What must be sought for is rapprochement in the hands of men of good will, mutually determined to debate and resolve from positions of strength in the joint interest of preserving a dynamic, unique institution — the University.

WHY NOT A UNIVERSITY CENTRE FOR THE STUDY OF HIGHER EDUCATION?

R. D. Mitchener*

In recent years research on higher education has increased. Expanding enrolments, sources of staff and finance, and concern with better manpower preparation and utilization have attracted more attention both inside and outside our universities. The Canadian Association of University Teachers recently added a research officer to its staff. The Canadian Universities Foundation has an expanding research and information service, as has the *Fédération des Collèges Classiques*. This summer the Federal Government appointed one of its senior civil servants as a special adviser on higher education. The Federal Department of Labour is concerned with manpower studies on the input and output of our educational system. The Education Division of the Dominion Bureau of Statistics, as well as counting noses, occasionally issues or collaborates on special research reports. The National Research Council, the Canada Council, and other agencies award large numbers of scholarships, fellowships, and research grants. Industry and various professional associations have focused more attention on educational output. The Industrial Foundation on Education, recently disbanded, did a good deal of direct and indirect fund-raising and related research for Canadian universities. In 1962 a small group of businessmen established the Canadian Foundation for Educational Development.

Oddly enough, no Canadian university has established a department of higher education studies. I have not heard of any planned for the immediate future, although a fair number of our graduate students go to the United States for such courses. No Canadian university curriculum offers undergraduate or graduate degree courses in university teaching and administrative problems and procedures. There is no course that I know of on the history of higher education in Canada — even for students of Canadian history, let alone for education students.

This summer a professor of history of education at a United States university explored Canadian library resources with a view to encouraging some of his graduate students to do research in the

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history of Canadian higher education. While this is most commendable, should *we* not be doing it?

In many ways our universities are neglecting an area of vital concern to themselves — one on which their soundness and vitality depend. Perhaps one reason for this neglect has been the position that the study of higher education is not a respectable academic pursuit. Perhaps our university authorities in recent years have been too busy to consider the merits of such an area of study, and have left it to some of the organizations mentioned previously. Whatever the reasons in the past, both the present and the future demand a continuing study of development and processes in Canadian higher education. It would seem to be as important to the life of our universities as is the study of biological and other sciences to the life of man.

Several centres for the study of higher education already exist at United States universities, for example at Columbia, at Michigan, and in California. I was told recently that one is being established at the London School of Economics.

A Canadian centre could draw on national higher education organizations and on such university departments as economics, education, psychology, and sociology, for staff and research. It might have as one function the administration of a graduate program for the training of prospective university teachers and administrators. It might publish a journal of higher education with research articles, and critical reviews of developments and innovations at other universities, some of which could be contributed by persons outside the centre itself. Such a journal would in no way encroach on the existing publications of the Canadian Association of University Teachers, the Canadian Universities Foundation, or other organizations.

Another function might be research on the students at the institution itself, on teaching methods and media, and its administrative procedures. "Self-study" and "institutional research" are techniques employed at many American universities, and one hears of them being practiced at Canadian institutions. The University of British Columbia, for example, has established an office of academic planning.

How might such a centre be financed? If a university itself could not find the money, one or more foundations might well support it,

at least initially. It seems reasonable to assume that various levels of government might encourage it, either directly or through one of their agencies. In late September it was announced that a grant of \$50,000 had been made to each of three Canadian universities, Alberta, Toronto, and *Montréal* by the National Fitness Council, for the establishment of sports research centres. While the advancement of sport and health are not, as education is thought to be, exclusively provincial matters, the Canada Council or the National Research Council are two agencies that might be able to perform a similar function in creating a higher education research centre.

In what city might such a centre be located? Ottawa comes to mind as one possibility. The facilities of the Canada Council, the Canadian Association of University Teachers, the Canadian Council on Research in Education, The Canadian Universities Foundation, the Dominion Bureau of Statistics, the Department of Labour, the External Aid Office, the National Research Council, and other Ottawa based organizations could be used and supplemented. Ottawa also has French and English language universities.

There is of course no reason why only one centre should be established. Regional or other considerations could lead to centres in the Atlantic Provinces, in Quebec, in Ontario, and in the Western Provinces.

Should such a centre be part of an existing faculty or department? Should it be attached to a Faculty of Education, or a Department of Economics, or be an appendage of the president's office? Should it perhaps be created as an inter-disciplinary department in its own right? Should it be a joint effort of two universities in close proximity such as Ottawa and Carleton or McGill and *Montréal*?

Some answers to these and other questions could be found by the expenditure of a few thousands dollars (which might be solicited from a foundation or found in the coffers of an interested university) on a study of existing centres and of the need for one more in Canada.

THE YEAR-ROUND CAMPUS: SOME PROBLEMS AND SOURCES

E. D. LeMire*

To all those connected with Canadian higher education, it should by now be obvious that the year-round campus idea, as an idea at least, is here to stay. It cannot be summarily dismissed as the Ontario Committee of University Presidents attempted to dismiss it.¹ Any plan of continuous operation may require larger faculties than we have at present, as the Committee noted. But one can hardly conceive of any acceptable response to increasing enrolments that will not require more teachers. Year-round planners maintain, and can cite figures to prove, that present and future faculty resources, as well as physical plant, can be used more efficiently when the universities operate for twelve months. Moreover, they say, accelerated education, a concomitant of most twelve-month calendars, will produce more of the needed staff, as well as more room, in a shorter time.

Indeed, a thorough review of published materials, almost all of which favor the longer calendar, makes it quite clear that, with regard to efficiency, arguments for continuous operation and accelerated programming are unassailable.² What may be more important, even when they are only imperfectly understood these arguments have an exceedingly strong public appeal. In the United States, legislators, university administrators, the news media, and the general public are espousing the cause in such numbers and with such fervency as would do justice to a revival movement.³ If the issues are presented to the Canadian public (and already this seems to be happening) in the same terms and with comparable authority

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¹J. J. Deutsch, *et al.*, *Post-Secondary Education in Ontario*, rev. Ed., p. 29. Wherever it does not appear in footnotes, full publication information for works cited will be found in the appended bibliography.

²This is not to say, of course, that all plans are equally efficient, that all practical problems have been solved in existing programs, or that Canadian institutions adopting a twelve-month calendar will not have special problems making it work efficiently.

³At the University of Pittsburgh in September, 1959, the first university trimester operation began. By January of this year no less than forty United States colleges and universities had changed or were changing to one or another of the new plans (see Sidney G. Tickton, *The Year-Round Campus Catches On*, p. 6). Though precise figures are not now available, it seems likely that twice that number are seriously considering the change.

as they are south of the border,⁴ the new Collège Saint-Denis program and the older cooperative engineering program at Waterloo will be repeated, with variations, many times. Official university planning groups here are already moving in that direction.⁵

In all this flux there are imbeded some special considerations for Canadian professors, some problems that can only be properly studied by informed faculties in Canadian universities and colleges. That neither Canadian nor United States faculties actually have studied them may be inferred from the almost complete absence of any dissenting or even cautionary publications. Indeed, proponents are so sanguine now that the year-round campus seems likely to become a panacea for all pressing university difficulties.⁶ And one great trouble with any panacea is that it distracts attention from and delays further treatment of the disease.

Canadians should be aware that number of important issues — seldom or never discussed in public print — are inseparable from the more easily answered question of efficiency. And whatever the difficulty of their study or the nature of their conclusions, they should be conversant with the various systems previously proposed or adopted in Canada and the United States and their relative efficiency. Besides this basic knowledge, there should be some *informed* opinion among Canadian professors regarding what might be called the

⁴Dr. Grayson Kirk (see the bibliography) is one among several eminent United States educators who have made strong public appeals for the year-round calendar and compressed undergraduate and graduate training. His argument, published in a mass-circulation national magazine and reinforced by his position as President of Columbia University, is still one of those most frequently cited, even in the learned journals.

Naturally, many of the arguments already current in the United States have a particular potency in Canada, where the present school year — in both one and two term institutions — is shorter than in the United States.

⁵In Alberta, for example, the Survey Committee on Higher Education recently recommended changing from the University of Alberta's present one-term year to the semester system, which obtains in most United States colleges and from which conversion to the trimester plan is comparatively easy. The same report, quite significantly, calls for "feasibility" studies of a year-round plan, suggesting "perhaps... a 'trimester' system" (E. W. Hinman, *et al.*, *Second Interim Report*, p. 12). In Ontario the discussion of the trimester system was officially suggested by the Advisory Committee on University Affairs (see John P. Robarts, *Ontario University Affairs: A Statement... Delivered in the Ontario Legislature, March 31, 1963* [Toronto: "Office of the Prime Minister and President of the Council, 1963"] p. 13).

⁶As might be expected, year-round college advertising brochures, produced for the public's edification, are most optimistic of all. But even in the journals there is regrettable one-sidedness, perhaps because the greatest advantage of continuous operation — public and private economy — is so clearly demonstrable.

"hidden" problems. I propose here to describe very briefly some of these and to provide a selected bibliography of standard sources.

Faculties must be aware that the concerted attempt to build an "efficiency image" by reforming the calendar sometimes cloaks other reforms in curricula, administration, etc.⁷ There is a danger in this, though it can gain entry for needed changes less potent in popularity than twelve-month operation. The "image maker" may be too good; he may distract his own faculty (by accident or design) from the *real* reforms. Thus, in effect, new academic arrangements are imposed rather than discussed and decided upon by those immediately concerned, those best qualified to render expert opinion.

In this connection a strong case might be made for bringing the faculty fully into consultation *before* the basic decision to change to continuous operation is made. But no machinery exists to insure such consultation, and the history of United States programs shows that faculties have usually been brought into the discussion only after the principle of year-round operation has been adopted.⁸ It remains for Canadian professors to demonstrate that they can make significant contributions to calendar discussion and to find ways to enter the discussion early, when they can do the most good.

Once in the discussion, professors might consider whether establishing a rotating faculty — as seems inevitable with continuous operation — within a non-rotating administration tends to alter faculty status. Present one-term and two-term systems, which take the faculty away from campus duties for a lengthy period, do not have quite the same effect since only one faculty, with a certain consciousness of unity, exists for each college. Is the professorial function, as traditionally interpreted, likely to become exclusively a service function under the new system? Will teachers exercise the same degree of control, for example, over present and future academic programs?

Finally, those particularly who are engaged in liberal education might well look closely at the assumption behind accelerated education. The educational interests and expectations of governments in a "technological age" may be predictable and, to a degree, logically

⁷This is discussed by David L. McKenna, "The Academic Calendar in Transition," p. 70.

⁸*Ibid.*, pp. 70-74.

defensible; but must we all assume that higher education is only, or primarily, a means to some other end, that it should always be — like other juvenile illnesses — recovered from as quickly as possible so the patient can get on to life's *real* and *important* things?

Intelligent discussion of these questions and of the myriad other considerations attendant upon year-round operation requires a certain background of *wissenschaft*, whether we like it or not. In consideration of this the following selected, annotated bibliography is included. It is selected because the literature on the question is already rather massive and, in many instances, repetitious. It is annotated to allow an even greater degree of selectivity where that is necessary. Statistical surveys of future enrollments, the general run of newspaper announcements, and instructions of particular colleges regarding purely internal arrangements have been omitted. For convenience, entries are divided according to the country of their origin.

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CANADA

Bibeau, Gilles, Gilles Valois, et al. "12 mois d'enseignement par année," *Bulletin de la Fédération des Collèges Classiques*, VIII (June, 1963), 1-16.

This is a special number devoted to discussion of a year-round proposal for the Collège Saint-Denis. It includes arguments for the change, tables comparing the new and old calendars, and a bibliography.

Deutsch, J. J., et al. *Post-Secondary Education in Ontario*. Revised edit. Toronto: The Committee of Presidents of Provincially Assisted Universities, 1963. Pp. 1 + 44.

See the introduction (above).

Hinman, E. W., et al. The Survey Committee on Higher Education in Alberta. *Second Interim Report*. Edmonton: The Survey Committee, [1962?]. Pp. 1 + [15].

See footnote 5 (above).

Lafond, Père Maurice, C.S.C. "Pour une réforme de l'année scolaire," *Bulletin de la Fédération des Collèges Classiques*, VII (April, 1962), 1-3.

The author, Superior of the Collège Sainte-Croix in Montreal, proposes calendar revision for academic reasons in college-preparatory schools and in colleges.

Webb, David C. *Year-Round Operation of Universities and Colleges*. Montreal: Canadian Foundation for Educational Development, 1963. Pp. [1] + 73.

This is by far the most important Canadian study of continuous operation yet to appear. An extensive bibliography is appended.

UNITED STATES OF AMERICA

Babcock, Charles L., et al. *Report of the Committee on Calendar Implementation and Class Rostering*. Philadelphia: University of Pennsylvania, 1963. Pp. 1-10 + appendices.

Student, administration, and faculty reactions to a year-round plan initiated in the fall of 1961 are summarized here. The plan included two fifteen-week

semesters and two six-week summer sessions. Five appendices reproduce questionnaire, tabulations of replies, extra comment, and the proposed new calendar that resulted from this information. The comments show an interesting variety of approaches.

"Colleges Can Operate All Year," *The Saturday Review*, XLV (Dec. 15, 1962), 50-55.

Under this heading four articles appear on different types of year-round operation: Edward H. Litchfield on "The Trimester System," at Pittsburgh, Weimer Hicks on "The Kalamazoo Plan," Marjorie Freed on "The Antioch Plan," and Joseph E. McCabe on "The 3-3 Plan" at Coe College. All the articles provide general academic and financial arguments for calendar revision and details of their particular arrangement. Of the authors, Marjorie Freed is Director of the Antioch College News Bureau; Joseph McCabe and Weimer Hicks are Presidents, respectively, of Coe College and Kalamazoo College; and Edward H. Litchfield is Chancellor of the University of Pittsburgh.

Cowley, W. H. *A Study of the Relative Merits of the Quarter and Semester Systems*. Columbus: The Ohio State University, 1932. Pp. [ii] + 52.

Chapter I, a history of the American college calendar, is of particular interest.

Documents Relating to Adoption of the Trimester Calendar. Pittsburgh: University of Pittsburgh, [n.d.].

In this single volume prepared by the University of Pittsburgh, a report on "The Trimester Calendar" by John Geise appears along with twelve appended documents related to that program, documents on policy, feasibility, and progress.

Dwyer, Paul S., et al. *Report of the University Calendar Study Committee of the University of Michigan*. Ann Arbor: University of Michigan, 1958. Pp. vi + 80.

One of the earliest university calendar studies which include continuous operation as a possible alternative, this report laid the foundations for the decisions made by William Haber's committee in 1961 (see below). In addition to the committee's recommendations, a good deal of background discussion and a bibliography are included.

Easton, Elmer C. *Year-Around Operation of Colleges*. Engineering Research Bulletin Number 41. New Brunswick (N.J.): Rutgers, The State University, College of Engineering, 1958. Pp. iv + 38.

The author, Dean of Rutgers University College of Engineering, establishes numerical values for students, faculty, programs, and relative use, and works from these to a formula whereby the efficiency of various calendars can be measured. This should be compared with the formula outlined in the Nelson Associates report (see below). Both systems are summarized by David C. Webb (see above).

Folley, Walter, et al. *Report of the Committee on the Calendar*. Detroit: Wayne State University, 1958. Pp. [ii] + [21], including a minority report.

Divided into two parts, one recommending a trimester calendar and the other discussing related matters, the report covers a wide range of problems attending larger enrollments at an urban university. The minority report cites some disadvantages of year-round operation and recommends that all other provisions for increasing enrolments be tried before adopting a calendar change.

Haber, William, et al. *Report: Commission on Year-Round Integrated Operation*. Ann Arbor: University of Michigan, 1961. Pp. 1-84 + 6 append.

This may be the most comprehensive preliminary study yet done by a University. It should be read in connection with the Dwyer Report (see above). A helpful bibliography is appended.

Hechinger, Fred M. "A Cure for Growing Pains," *The Saturday Review*, XLII (Sept. 12, 1959), 20-21, 51-2.

The author, education editor of *The New York Times*, gives a sympathetic appraisal of the Pittsburgh trimester system, which was officially begun in the month he wrote. The primary argument rests on saving educational time.

Henderson, Algo D. "A Critical Look at Year-Round Operation of Institutions," in *Current Issues in Higher Education: Higher Education in an Age of Revolutions* (New York: Association for Higher Education, 1962). Pp. 161-64. In this essay, the Director of the Center for the Study of Higher Education at the University of Michigan provides a general review of problems and responses to year-round operation. He concludes that both plans, trimester and quarter, are feasible if the faculty can be involved in planning.

Hicks, Weimer. "Why Not a Twelve-Month College?" *The Saturday Review*, XLIII (Nov. 19, 1960), 6S.

Out of concern for the preservation of the small, private, liberal arts college, President Hicks of Kalamazoo College proposes a year-round calendar and revision of curricula and teaching techniques.

Hilberry, Clarence. *Report to the Board of Governors on the University Calendar*. Detroit: Wayne State University, 1961. Pp. 1 + 5.

This is a communication from the President of Wayne State University to the faculty and the Board of Governors stating his decision to recommend adoption of the quarter system. Of particular interest are his reasons.

Hungate, Thad L., and Earl J. McGrath. *A New Trimester Three-Year Degree Program*. New York: Columbia University Institute of Higher Education, 1963. Pp. vii + 31.

This monograph argues for an academic year composed of three fourteen-week trimesters. The terms of reference are in the main academic, but arguments from numbers and economics play an important part. The footnotes contain useful bibliographical material.

Kerr, Clark. "Plan Proposed for Year-Round Operation to Begin at Berkeley During 1966-67," *University [of California] Bulletin*, XII (July 1, 1963), 1-2, 5-12.

President Kerr of California here reports to the Regents of the University on plans and procedures for establishing year-round programs. The same issue of the *Bulletin* contains several interesting appendices: a chronology of developments toward a year-round calendar, letters from chief campus officers on the relative merits of quarter and trimester systems, and secondary-school and junior college reactions.

Kirk, Grayson. "College Shouldn't Take Four Years," *The Saturday Evening Post*, CCXXXII (March 26, 1960). 21, 108-12.

The author, President of Columbia University, proposes the trimester system as a means of getting people through undergraduate and professional training earlier. He responds to several academic, social, and economic arguments against the plan.

Litchfield, Edward H., et al. *Proceedings of The Trimester Conference..., June 15, 1960*. Pittsburgh: University of Pittsburgh, 1960. Pp. 1-9 + 2 append.

This includes a summary of talks by Chancellor Litchfield and his associates outlining the thinking behind Pittsburgh's trimester system. A resume of the discussion which followed the talks is appended.

McKenna, David L. "The Academic Calendar in Transition," *The Educational Record*, XLIII (Jan., 1962), 68-75.

The author distinguishes between the motives of various interested parties — administration, faculty, and public -- in the movement toward continuous

operation. He clarifies considerably the actual political processes involved and the pitfalls therein.

Nelson Associates. *Increasing College Capacity by Calendar Revision*. Albany: State University of New York, 1961. Pp. [i]-115 + 31 append.

This study, made by a White Plains management consulting firm, was the basis for year-round calendar experiments on three State University of New York campuses. As in Elmer C. Easton's study (see above), the heart of the matter consists in mathematical formulae for determining any calendar's relative efficiency. The appendices cover related problems of year-round operation, offering mathematical terms of reference for their solution. The methods developed here differ somewhat from Easton's.

Pressey, Sidney L. *Educational Acceleration: Appraisals and Basic Problems*. Columbus: Ohio State University, 1949. Pp. vii + 153.

This study is the result of an educational research project begun during the W.W. II accelerated training program at Ohio State University. During the research thirty-three papers appeared in journals. The author adds, "this monograph gives an integrated resume of such matter, adds much material not hitherto published, and attempts a somewhat new, broad construction of the whole subject." He finds in favor of accelerated education, or at least of those flexible programs which make it possible. Knowledge of his arguments is essential to an understanding of possible effects of year-round, accelerated education on students.

Rauh, Morton A. "College the Year Round," *Antioch Notes*, XXXVIII (April, 1961), [1]-[8].

The author of this article, Vice-President and Director of Development at Antioch College, states in general terms the financial advantages of year-round operation.

School Administrators, American Association of. *Year-Round School*. Washington: National Education Association, 1960. Pp. [iii] + 26.

To some degree, fullest efficiency in university year-round programs may involve similar systems in secondary schools. This pamphlet proposes a "staggered quarter plan for all" schools. A bibliography of sixty-four entries gives some idea of the intensity with which continuous operation is being discussed below the college level and introduces this new aspect of study.

Shick, Wayne L. "Full-Time Education," *Journal of Engineering Education*, XLVIII (May, 1958), 708-9.

This article, by an Associate Professor of General Engineering at the University of Illinois, is one of the early responses to the Sputnik-inspired "crisis" in U.S. education. The arguments for a year-round program are those now most familiar, here presented in quite abbreviated form. It includes an interesting proposal that all educational buildings should in any case be air-conditioned in future.

Tickton, Sidney G. *The Year-Round Campus Catches On*. New York: Fund for the Advancement of Education, 1963. Pp. [1] + 48.

This is a collection of pertinent facts regarding current or projected year-round operations at forty U.S. colleges and universities. Officials who will provide additional information are listed for each institution.

Wedekind, C. E., et al. *Characteristics and Attitudes of Students Attending the University of Pittsburgh under the Trimester System*. Pittsburgh: Office of Institutional Planning, University of Pittsburgh, 1961. Pp. [ii]-58 + 5 append. This is a statistical analysis of a mail survey, "designed to determine the students' personal characteristics, opinions, behaviors, and attitudes concerning the extent to which the trimester calendar met their academic, social, and economic needs." From the forty variables tested some highly significant

trends emerge, such as the importance of economics and professional goals in choosing accelerated training.

Wells, Warren D., *et al.* *The University Calendar*. Pittsburgh: The American Association of Collegiate Registrars, 1961. Pp. [vii] + 59.

Paul L. Trump's "Foreword" describes this study: "It does not recommend a best academic calendar or hold that a single standard calendar is feasible. It does bring together a clear and comprehensive summary of factors to be considered in calendar planning. It gives intimate insight into the processes of substantial calendar change occurring recently on two major campuses," i.e. Dartmouth College and the University of Pittsburgh. It need only be added that this is the most comprehensive and objective short treatment of the whole subject and that it contains a helpful bibliography (pp. 53-5).

Young, H. H. "Why Not a Three-Semester College Year?" *Journal of Engineering Education*, XLVIII (May, 1958), 710-14.

This is a straightforward trimester argument, developed with sample calendars to show the ease of adjusting the year-round plan to the standard two-semester calendar.

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**FEDERAL COUNCIL OF UNIVERSITY STAFF
ASSOCIATIONS OF AUSTRALIA — COMMUNICATION**

3rd October, 1963

Dr. J. H. S. Reid,
Executive Secretary,
Canadian Association of University Teachers,
Commonwealth Building,
77 Metcalfe St.,
Ottawa, Ontario,
CANADA.

Dear Dr. Reid,

At the Annual General Meeting of the Federal Council on the 19th to 21st August, 1963, Council passed the following resolution:

'That, in view of the failure of the University of Tasmania to negotiate in the Orr case, as repeatedly invited to do so, and its failure to adopt safeguards of tenure and satisfactory procedures for the investigation of serious charges against academic staff put forward by the Tasmanian Staff Association in September, 1962, Federal Council reaffirms its censure of December, 1960, and informs applicants for academic positions in the University of Tasmania that it would be advisable for them to seek information on such conditions currently obtaining there from the Secretary of Federal Council.'

It would be appreciated if you would bring this resolution to the notice of the members of your Association.

Yours sincerely,

IAN SOMERVAILLE
Hon. Secretary.

C.A.U.T. MEMBERSHIP DATA, 1962-63

Association	(1)* Full-time Acad. staff 1962-63	(2)* Eligible for membership in local Assoc.	(3)* Local Assoc. membership 1962-63	(4) CAUT paid membership 1962-63	CAUT membership (4) as percentage of:-	
	(2) (Eligible for local)	(3) (In local)				
Victoria	121	172	120	(78)	82	48%
U.B.C.	818	818	723	(676)	717	88%
Calgary	132	125	100	(35)	40	32%
Alberta	616	616	278	(255)	190	31%
Saskatchewan	394	308	292	(252)	280	91%
Brandon	31	28	27	(20)	27	96%
Manitoba	377	390	301	(240)	301	79%
St. John's	22	30	25	(18)	21	70%
St. Paul's	19	17	14		14	82%
United	49	64	33	(22)	17	22%
Lakehead	17	21	18	(10)	14	67%
Assumption	140	140	101	(87)	100	71%
Western	297	319	145	(149)	144	45%
Laurentian	53	53	41	(38)	41	77%
Waterloo	125	125	89	(76)	76	60%
Waterloo Luth.	43	43	40	(36)	40	94%
O.A.C.	232	235	171	(174)	162	70%
O.V.C.	65	55	52	(52)	52	95%
McMaster	183	174	165	(148)	165	95%
Toronto	1000—	1000—	615	(495)	615	62%
York	36	36+	37		35	95%
Queen's	256	256	194	(152)	194	76%
Carleton	116	116	71	(65)	71	61%
Ottawa	271	271	87	(36)	37	14%
Montreal	450	315	229	(227)	229	73%
McGill	650	550	390	(321)	382	79%
Sir Geo. Wms.	97	80	74	(57)	74	91%
Jean de Brébeuf	24	24	13	(6)	13	52%
Bishop's	36	34	27	(27)	27	80%
Laval	410	410	224	(227)	209	51%
Sherbrooke						
U.N.B.	152	152	93	(104)	93	60%
Mount Allison	90	90	45	(50)	45	50%
Dalhousie	161	370	105	(77)	85	23%
St. Mary's	46	46	20	(9)	20	43%
N.S. Tech.	37	37	30	(7)	6	16%
St. F.X.	124	110	43	(45)	43	39%
Memorial	114	121	74	(77)	74	60%
Headquarters				(12)	28	
TOTALS	7523	7593	5103		4808	62%
& PERCENTAGES						92%

() Figures in brackets = 1961-62 C.A.U.T. membership.

* Supplied by local Faculty Associations.

NOTICE OF POSITIONS VACANT *

University of Alberta, Edmonton, Alberta: Assistant Professor of Animal Physiology, Department of Animal Science, Faculty of Agriculture. Ph.D. or equivalent in animal physiology, minor in biochemistry preferred. Duties include fundamental and applied research with farm and laboratory animals with emphasis on environmental physiology; teaching; limited extension work. Starting salary \$7,500 to \$9,000 depending on qualifications; to begin between January 1st and July 1st, 1964. Apply, giving names and addresses of three references, to Head, Department of Animal Science, University of Alberta, Edmonton, Alberta. Closing date: November 30th, 1963.

Bishop's University, Lennoxville, P.Q.: The Department of Modern Languages invites applications for the position of Lecturer or Assistant Professor. The appointee will give courses in French and German and must include among his qualifications the ability to conduct all work in French in that language. Current salary minima for the ranks named are \$6,250 and \$6,700 plus various allowances. Applications should be addressed to the Head of the Department, Professor E. H. Yarrill.

Bishop's University, Lennoxville, P.Q.: Applications are invited for an appointment as Lecturer or Assistant Professor in the Department of Philosophy. The salary range for lecturers is \$6,250 - \$6,750, for assistant professors \$6,950 - \$7,950, plus various allowances. Applications should be sent to the Head of the Department.

University of Montreal, Montreal, P.Q.: The Department of English has vacancies in (1) English Canadian Literature, and (2) the Teaching of English as a Second Language (a theoretical course; training in linguistics required). A third position in an area involving British literature may also become available. The language of classroom instruction is English, but for other purposes candidates should have a command of conversational French. Address inquiries to Robert M. Browne, Chairman, Department of English, University of Montreal.

*Notices of positions vacant are carried free of charge.

Nova Scotia Technical College, Halifax, Nova Scotia: The Nova Scotia Technical College invites applications for the position of Head of the Department of Electrical Engineering, which will become vacant in May, 1964. The position calls for leadership in teaching and administration as well as offering the opportunity of developing a rapidly expanding group of graduate students. Candidates should have a higher degree, an established field of research, and a number of years of university teaching experience. Salary will be commensurate with a senior appointment. Applications should be sent to the President, Nova Scotia Technical College, Box 1000, Halifax, N.S.

Peshawar University, Pakistan: Canada has had a request for an Economist and a Zoologist for Peshawar University in Pakistan for the term opening January 1, 1964, if it is not possible earlier. Experienced teachers are required for two-year periods. *There is no age limit.* For further information, write to the External Aid Office, 75 Albert St., Ottawa, Ontario.

Sir George Williams University, Montreal, Canada: Applications are invited from Ph.D. physicists for the position of Lecturer or Assistant Professor in the Department of Physics. Duties will involve undergraduate teaching and research. Ability to initiate research desirable. New Building with research facilities planned. Initial salary dependent upon experience but competitive. Inquiries and applications, together with a curriculum vitae, a recent photograph or snapshot, and the names of three referees should be addressed to: The Chairman, Department of Physics, Sir George Williams University, Montreal, Quebec, Canada.

University of Toronto, Toronto, Ontario: The Department of History announces vacancies for Lecturer or Assistant Professor (\$6,000 - \$7,500) in the following fields: (1) Italian Renaissance; (2) Italian Risorgimento; (3) French Revolution; (4) Britain and the Empire since 1485; and, (5) Canada and the United States. It also announces a vacancy for Associate Professor or Professor, to teach the history of Russia since the 17th Century. Apply to the Chairman of the Department by December 1, 1963, submitting curriculum vitae and naming three references.

University of Saskatchewan, Regina Campus: Applications are invited for the appointments listed below. Appointment are for the academic year 1964-65. Applications should include a detailed curriculum vitae, a recent photograph, and the names of three referees. The following salary scales apply except for Visiting Professors: Instructors, \$6,800 maximum; Assistant Professors, \$7,000 - \$9,300; Associate Professors, \$9,500 - \$12,300; Full Professors, \$12,500 - \$13,800.

Division of Social Sciences

Department of Economics: Visiting Full Professor of Economics. Salary range \$13,000 - \$14,000 including travel expense. To offer two courses in theory and methodology at the advanced undergraduate level, to participate in seminars and to give occasional public lectures. *Visiting Full Professor of Political Science.* Salary range \$13,000 - \$14,000, including travel expense. To offer two courses in political behaviour and institutions, political theory, or recent political thought at the advanced undergraduate level, to participate in seminars and to give occasional public lectures. *Visiting Associate Professor of Economics.* Salary range \$10,500 - \$12,000, including travel expense. To offer two courses in econometrics and related fields at the advanced undergraduate level, to participate in seminars, and to give occasional public lectures.

Department of History: Associate Professor of History and Assistant Professor of History. Two appointments to offer courses in Medieval, Modern European, British, and Commonwealth history.

Department of Sociology: Assistant Professor of Sociology. To offer courses in general sociology and some specialty.

Department of Anthropology: Associate Professor of Anthropology. To develop a balanced program and teach basic courses in cultural anthropology.

Department of Psychology: Assistant Professor of Psychology. To offer courses in developmental or physiological psychology or motivation.

Address applications to Dr. Dallas W. Smythe, Chairman, Division of Social Sciences, University of Saskatchewan, Regina Campus, Regina, Saskatchewan.

Division of Humanities

Department of Modern Languages: One Assistant Professor or Instructor in French and/or German. Candidate for Assistant Professor preferably should have Ph.D., some teaching experience, and some scholarly ambition or accomplishments. *Associate Professor of Slavic Languages.* Requirements Ph.D. (or equivalent), adequate teaching experience, and scholarly achievements. Would be expected to help develop a university program in Slavic languages.

Department of English: Two Instructors. Will be required primarily for general English courses in Arts and Science. Should have an M.A., and, if possible, some teaching experience.

Department of Philosophy: One Instructor or Assistant Professor. Candidate with Ph.D. (or equivalent), some teaching experience, and scholarly aims will be preferred.

Address applications to Dr. Henry Jack, Chairman, Division of Humanities, University of Saskatchewan, Regina Campus, Regina, Saskatchewan.

Division of Natural Sciences

Department of Biology: Professor of Biology. Botany (Morphology or Ecology preferred) or Zoology (Specialization open). *Assistant Professor of Biology.* Botany (Morphology or Ecology preferred) or Zoology (Specialization open).

Department of Chemistry: Two Assistant Professors of Chemistry. Inorganic and/or Analytical Chemistry and Physical Organic Chemistry.

Department of Geology: Associate Professor of Geology. Specialization open.

Department of Mathematics: Professor of Mathematics. Specialization open. *Assistant Professor of Mathematics.* Specialization open.

Department of Physics: Professor of Physics. Specialization open. *Assistant Professor of Physics.* Specialization open.

The Ph.D. or an equivalent degree is desirable, and, for the senior ranks, considerable experience is required. Address applications to Dr. A. B. Van Cleave, Chairman, Division of Natural Sciences, University of Saskatchewan, Regina Campus, Regina, Saskatchewan.

Division of Fine Arts

Department of Drama: Associate Professor of Drama. To introduce the study of drama and develop a well-balanced program in this field. An advanced degree and some theatre experience are required.

Department of Music: Associate Professor of Music. To develop and teach theory in an academic program associated with a Conservatory of Music. An advanced degree and some teaching experience essential. *Lecturer in Music (Brass Instruments).* To instruct in a degree program and in Conservatory of Music.

Applications should be addressed to Principal W. A. Riddell, University of Saskatchewan, Regina Campus, Regina, Saskatchewan.

Sir George Williams University, Montreal, P.Q.: The Department of Modern Languages invites applications for the position of Lecturer or Assistant Professor of French. Applicants must: (a) be of French-speaking origin, (b) have at least an M.A. or Licence and work toward a higher degree, (c) have some teaching experience, and (d) be capable of teaching courses on French Canadian literature. Applications, including a curriculum vitae, a recent photograph, and names of professional and academic references should be sent to the Chairman of the Department.

St. Paul's College, Winnipeg, Manitoba (Catholic affiliate of the University of Manitoba): Sociologist wanted for September, 1964. Rank and salary open and competitive, depending on qualifications. Address inquiries to the Dean of Arts and Science, Saint Paul's College, Winnipeg 19, Manitoba.

University of Western Ontario, London, Ont.: Applications are invited for the post of lecturer (minimum \$6000) or assistant professor (minimum \$7500) to teach mediaeval literature, especially Chaucer, and the history of the English language. Some knowledge of descriptive linguistics is desirable. Graduate and undergraduate courses are given. To begin September, 1964. Write to Professor C. Dean, Chairman, Department of English, Middlesex College, University of Western Ontario.

Sir George Williams University, Montreal, P.Q.: Teaching positions in Mechanical and Civil Engineering. M.A. or Ph.D. with interest in teaching and developing courses in new degree program. Salary and rank commensurate with qualifications. Write Jack Bordan, Dean, Faculty of Engineering, Sir George Williams University, Montreal 25, Quebec, Canada.

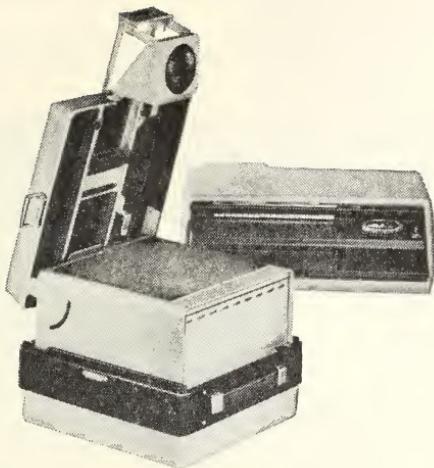
NOTICE OF PERSONS AVAILABLE FOR APPOINTMENT *

Biology and/or Physiological Chemistry: Full time. European, female, 45; D.Sc., M.Sc. (Biochemistry). Over seven years research and teaching in Canadian universities. Recent experience in writing a *Handbook*, which is in preparation. Curriculum vitae and list of publications available. Replies to Box No. 18, C.A.U.T. National Office, Room 603, 77 Metcalfe St., Ottawa, Ontario.

Economics or Commerce: B. Com. with Honours (London University), M. Com. (Natal University), since 1942 Secretary to National Council for the Motor Industry (South Africa), experienced lecturer, on long vacation from his present employment during 1964-65, desires temporary lecturing post in some branch of Economics or Commerce, preferably at an institution which has special courses in African Affairs. Curriculum vitae, references, list of publications available on request. Replies to Box No. 19, C.A.U.T. National Office, Room 603, 77 Metcalfe St., Ottawa, Ontario.

*Notices of persons available for appointment are carried at fifty cents a line. Write to the C.A.U.T. National Office, Room 603, 77 Metcalfe St., Ottawa, Ontario.

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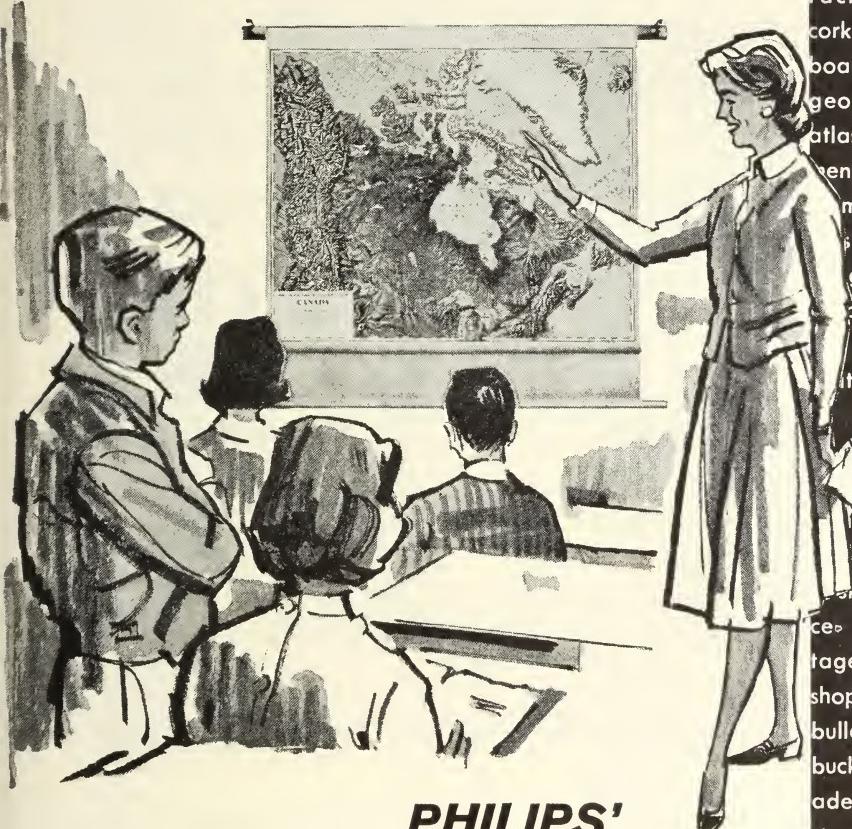
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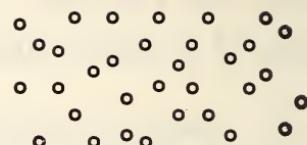
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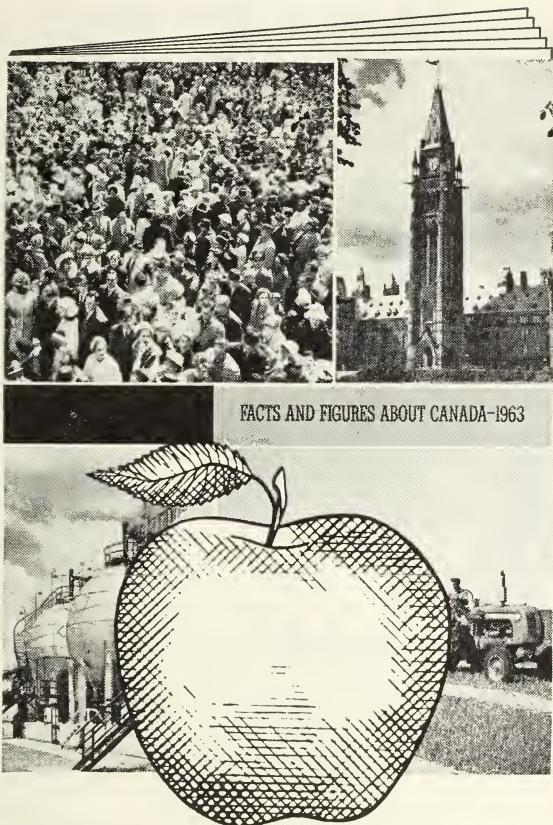
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